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ESSAYS

BIOGRAPHICAL, HISTORICAL, AND MISCELLANEOUS

CONTRIBUTED CHIEFLY TO THE

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EDINBURGH AND QUARTERLY REVIEWS.

BY THE

REV. G. R. GLEIG, M.A.

CHAPLAIN-GENERAL TO HER MAJESTY'S FORCES, AND

PREBENDARY OF ST. PAUL'S.

IN TWO VOLUMES.

VOL. II.

NN2e4

LONDON:

LONGMAN, BROWN, GREEN, LONGMANS, AND ROBERTS.

1858.

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TO

ROBERT FERGUSON, ESQ., M.D.

—

My dear Ferguson,

I dedicate these volumes to you, not because I desire to hold you responsible for any of the opinions therein expressed, but because an uninterrupted friendship of well-nigh forty years justifies me in believing that at least we understand one another.

You do not require to be told that they comprise but a fragmentary portion of the Essays, good, bad, and indifferent, of which I might claim the authorship; for we are, I believe, the sole surviving members of a little band, who, in youth and early manhood wrote perpetually, rather be-

cause we were driven to do so by impulses which could not be resisted, than because we took any thought of securing to ourselves a recompense either of profit or renown.

With what boldness we expressed ourselves then upon points which time and matured judgments have since taught us to approach with diffidence, it would little interest the world to be told. But it is good for ourselves to feel that a more intimate acquaintance with men and things has not been thrown away upon us; and that our views on many subjects, if not radically changed, are at all events modified by the enlarged experience which years never fail to give to him who is willing to be taught by them.

Another consideration which induces me to inscribe these Essays to you, is this:—

You know with what earnestness I have striven throughout the last fifteen years to find the means of giving to military society—from its apex to its base—that tone, which in all Christian countries,

and especially in this, so well becomes it. You are neither ignorant of my convictions, nor have you ever condemned them, that in proportion as British officers and soldiers learn to appreciate the dignity of their calling, they become more and more alive to the weight of the moral, not less than of the political responsibility which it imposes upon them. They come gradually to see that it is not for their external bravery alone that they are marked men in all the towns and villages through which they pass at home. They accept and appreciate the important fact, that to them it is given to open a way, by the conquests which they achieve, to the most important of our Christian missions abroad. And so it comes to pass that they begin to feel, as well as to understand, that they, more than any other class of persons, promote or mar the growth of true and practical religion, according as they exhibit in their own persons, or otherwise, proof how men's lives may be squared, amid many temptations to the contrary, by a high sense of duty to God and man. Now I hold, and so do you, that the link which

connects moral with intellectual culture, is riveted by the Great Author of both; and that he who aims wisely at giving a stimulus to the one, cannot, even if he desire it, fail to give a stimulus to the other also. Wherefore our maxim has long been—establish for the British army such a system of training as shall exercise both the minds and bodies of all ranks in a becoming manner; and if the army do not attain, as a body, to moral as well as to intellectual eminence, the fault will not be yours. At least, you will have done your part, by endeavouring to awaken in the members of that body, tastes which seek their gratification in higher things than those of sense.

You know how much this idea has filled my own mind ever since 1844, when my connection with the army was renewed. You have listened over and over again with exemplary patience to my complaints, when positive opposition in one quarter, and mere official indifference in another, seemed to interpose obstacle after obstacle, between me and the accomplishment of my wishes:

Whatever may be the opinions of others, therefore,
. . will neither wonder nor condemn,
gyman, no longer young, should in
cations with the public, enter so
largely, as these volumes show that I have lately done, into the discussion of subjects as little connected as need be with the ordinary habits or studies of his own profession.

One word more. I have endeavoured to save from being quite forgotten a little traditionary story, by finding a place for it among these Essays. Of this act, too, you are aware of the cause. When I went abroad in search of health many years ago, it was arranged between myself and a very dear friend, rich in Highland lore, that I should collect a few oral legends, if such still survived in Germany, in order that we might, on my return, compare the spirit of Teutonic with that of Celtic superstition, and possibly compile between us a work illustrative of both. Our gifted friend was prematurely taken from us, and the project fell to the ground. But one tale,

"The Mädchen-Stein," had been written, and I have given to it a place in this collection rather because of its association with the memory of bygone days than through any mistaken opinion of its merits.

My views on these and other points may be just, or the reverse. Even you may differ from me in some of the opinions which I have advanced regarding them; but of one thing I am confident, that you will receive in the spirit with which they are offered, the Essays now dedicated to you, and give full credit to the author for the motives which led to their composition. For in our estimate both of the importance of life while it lasts,—of friendship which deserves the name,—and of the value of life itself, whether it be protracted or cut short, we have never, I believe, held but one opinion, and the illustrious Tully has taught us how to express it. Of the one we say with him, "Quod, quam magnum sit, fictæ veterum fabulæ declarant, in quibus, tam multis, tamque variis, ab ultima antiquitate repetitis, tria vix

amicorum paria reperiuntur, ut ad Orestem pervenias, profectus a Theseo." Of the other, "Quid enim habet vita commodi? quid non potius laboris? Sed habeat sane, habet certe tamen aut societatem, aut modum. Non lubet enim mihi, deplorare vitam, quod multi, et ii docti sæpe fecerunt. Neque me vixisse pœnitet: quoniam ita vixi, ut non frustra me natum existimem; et ex vita ita discedo, tanquam ex hospitio, non tanquam ex domo."

Ever affectionately yours,

G. R. GLEIG.

[1 Lofthouse, February, 1858.]

ADVERTISEMENT.

I HAVE to express my obligations to Mr. Murray, Mr. Blackwood, and Mr. Parker, for the liberality with which they have allowed me to make use of Essays which appeared originally in the able periodical works, of which they are respectively the proprietors.

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ESSAYS.

DR. CHALMERS.*

THOMAS CHALMERS was born at Anstruther, a small town in Fife, on the 17th of March, 1780. His father, a dyer, ship-owner, and general merchant there, attained to the dignity of Provost. His mother was the daughter of a wine-merchant in the neighbouring borough of Crail. They were a respectable couple in their station, industrious, frugal, and of good report. Their union proved to be more than ordinarily fruitful: they had not fewer than nine

* From the "Quarterly Review" for Sept. 1852.

1. *Memoirs of the Life and Writings of Thomas Chalmers, D.D., LL.D.* By his Son-in-Law, the Rev. William Hanna, LL.D. 4 vols. 8vo. Edinburgh, 1852.

2. *Posthumous Works of Dr. Chalmers.* 9 vols. 8vo. Edinburgh, 1852.

3. *A Biographical Notice of Dr. Chalmers.* By the Very Rev. E. B. Ramsay, M.A., F.R.S.E. Edinburgh. 4to. 1842.

sons and five daughters, of whom one only died in childhood.

Thomas—the sixth branch from the parent olive—was sent to the parish-school when only three years of age. Neither his father nor his mother, it appears, could find time to instruct him at home; and the nurse, to whose care he was committed, behaved cruelly to him: so the little urchin shouldered his satchel unrepiningly, and went forth day by day with his elder brothers. But the rector's sight had almost wholly failed, and the usher was indolent. The future doctor mounted from class to class regularly till he reached the highest, and passed out of that as ill-instructed a boy as probably ever came from the hands even of a Scotch dominie.

The family had furnished more than one minister to the Kirk; and the ministerial office, as might be expected, was held in great esteem in the house. Indeed, the provost, being himself a ruling elder, inherited much of the spirit of his clerical ancestors; so that young Thomas was encouraged in the choice of a profession, which he seems very early to have made.

Accordingly, on attaining his twelfth year, he was entered as a student at St. Andrew's, and took

his place under the Professor of Humanity — that is, of Latin. But here his defective school-training told sorely against him. He could not construe the easiest of the class-books: he was quite unable to follow the eloquent Dr. Hunter in his prelections. He lost heart, and became a complete idler. Golf, foot-ball, and fives engrossed a much larger portion of his time than Ruddiman; and all the hours not given up to play were spent in desultory reading — the mere indulgence of a teeming fancy — as is proved by the fact that, though of course in those early days tales and legends took fast hold upon his memory, he could not recollect how the words which conveyed them to his mind were formed. Chalmers never wrote a hand which even a printer could decipher without labour and sorrow. His orthography in those early days would have shocked Aunt Tabitha or even Winifred Jenkyns herself.

Though terribly unlettered, Chalmers was not a coarse-minded or rude boy. His temper was mild, his disposition singularly amiable; all his companions liked him; and a lad whom the future Lord Campbell and Dr. Leyden selected for their friend must have had more to recommend him than a mild temper and an amiable disposition. The

truth is, that an intellect naturally fine and patient of labour was running to waste for lack of guidance. As a mere infant, Chalmers exhibited unmistakeable evidence of an imaginative temperament. His father used to read the Bible to his children on a Sunday evening, and, being a Calvinist of the stern old school, read at least as often out of the Old Testament as out of the New: among all his auditors there was not one on whom the touching stories of the patriarchal and Levitical times made half so deep an impression as on little Thomas. It is told of him that having listened to the tale of Absalom's death and David's sorrow, he suddenly disappeared, and was found, after considerable search, walking backwards and forwards excited and absorbed, and repeating to himself the words, "Oh my son Absalom! oh Absalom, my son, my son!" He was then not quite three years old. Had proper pains been taken with him in school, and beside his mother's knee — though we probably should not have had to notice the biography of a leading divine — it might have been our duty to review the career of a distinguished scholar, not impossibly of a pre-eminent poet.

After spending two winters in a class with which he could not keep up, Chalmers became, at

the commencement of his third session, a student of mathematics. That he had any natural bias for the investigation of abstract truth we must take the liberty to doubt. His writings give no indications of a mind prone to grapple closely with an argument, and dissatisfied with conclusions that rest upon other than geometrical proof. But the science was new to him, and, which perhaps gave to it additional attractions, he saw that it was equally new to his class-fellows. Now at last he could hope to start fair; and his energies awoke. From being the idlest he became the most industrious boy in the class. Every task was mastered; every exercise completed and shown up. Dr. Hanna says that this was his intellectual birth-time. Perhaps it was; but more than the birth of intellect marked it. It led the way by a very simple process to habits of thinking on the most important of all subjects, which had well nigh made shipwreck of a noble nature, and were not cast aside without much suffering many years afterwards.

The concluding quarter of the last century, with perhaps the first decade or something more of the present, will long be remembered as a season of much religious and political scepticism in both

sections of the United Kingdom. In England, it is true, the philosophy of the French Encyclopedists made little way, except within a particular circle. There might be, there always is, a vast amount of practical infidelity in the lowest walks of life; and Priestley and Godwin did their best to propagate, in classes above the lowest, doctrines not more wholesome. But our seats of learning were uncontaminated; and the clergy, however careless they might be — (and of their too common carelessness there can be no doubt) — neither entertained in private nor publicly taught views subversive of revealed truth or hostile to established government. The case was different in Scotland: there an ill-regulated taste for metaphysical inquiry led multitudes of all ranks into the adoption of views which had no other connexion with the deductions of their favourite science than arose out of an exaggerated admiration for the genius of David Hume. Moreover the terms of intimacy on which that arch-infidel and other gentlemen of his colour lived with the moderator of the General Assembly, and the leader of the Church, were not without the worst effects upon the clergy — among the younger portion of them especially. They saw that to attain to emi-

nence in their profession, very rigid opinions on points of faith were not necessary. The ambitious turned their attention to almost any subject, whether of literature or of science, rather than to theology; and of their pulpit oratory the tone became by degrees as decorous as the stiffest admirer of Blair and the fathers of the moral school could desire. Meanwhile the clerical aspirants for professorial chairs — and in a church with hardly any prizes strictly her own such aspirants are numerous — sought their chairs like philosophers, and not seldom like philosophers made use of them. Their public prelections were rigidly confined to the discussion of the sciences which they engaged to teach; their private conversation, to which only the cleverest pupils were admitted, took a much wider range. There ethics and politics were handled with a freedom which could not fail to make an impression upon the ingenuous minds of their auditors, who, whatever might have been their home training, seldom quitted such symposia unchanged. We should be sorry to malign either the living or the dead: but it is our deliberate opinion, that with the exception of France, there was not a more infidel country on the face of the earth than Scotland sixty or seventy years ago;

and we further believe that she was mainly indebted for this bad distinction to the active exertions of her professors, and the indifference, disguised under the title of moderation, which generally distinguished the teaching of her more accomplished and influential clergy.

Professor Vilant had become almost wholly *functus officio* when Chalmers entered the mathematical class; it was in consequence taught by the Rev. Dr. James Brown, a skilful teacher, but a free-thinker as well in religion as in politics. The son of a miller near St. Andrews, he had worked his way by industry and talent, and been presented by the College, not long previously, to the living of Denino, about four miles off. Dr. Brown was much taken with young Chalmers's zeal in his mathematical studies. He invited him to his house, introduced him to his two most intimate friends, the late Sir John Leslie and Professor Mylne, and soon succeeded, with their assistance, in delivering him from all the prejudices in which he had been brought up. The Calvinism of the back-shop went first by the board, and the Toryism which sustained it followed. Chalmers devoured Godwin's *Political Justice*, and yearned for the coming regeneration of the world. He cast aside

his Bible, and gave himself up to the contemplation of the power, the wisdom, and the goodness of the Supreme First Cause. He entered the mathematical class a thoughtless, idle, imaginative boy; he passed out of it a transcendental philosophist and a democrat.

Though the direction which his thoughts had taken was not a fortunate one, much seems to have been gained for him by putting them in motion at all. He learned by degrees to reduce them into shape, and to arrange the results upon paper. He was his own instructor in this art, adopting such models as came first to hand; Godwin and the two professors under whom he sat were his masters. He become a member likewise of a debating club, wherein political subjects were discussed; and by and by joined a theological association, where he greatly distinguished himself. This was after his admission into the Divinity Hall, where he took his seat for the first time in November 1795, and within which he continued to show himself regularly till 1798. Yet all this while his creed was as far removed from that of the Apostles as it could well be. As was to be expected, the prelections of the worthy Dr. Hill interested him very little. He was ready

enough to discuss with anyone the doctrine of philosophical necessity, and verged nearer and nearer every day to Pantheism. But neither the evidences of Christianity nor the theological system of Calvin (to which Dr. Hill mainly directed the attention of his pupils) had any charms for him. He read mathematics and chemistry, while others read divinity ; yet both his public prayers and his class exercises attracted more notice than those of any other student.* He seemed to have sprung all at once to the full measure of his intellectual stature, and became, as a matter of course, conceited, arrogant, and vain.

It was a common practice with divinity students to enter during vacation time as tutors into the families of country gentlemen, and to look for preferment through their interest; which at the period we treat of was potential and rarely refused. Chalmers, partly with a view to establish a connexion for himself, partly that he might relieve his father from an immediate expense,

* It is the custom in Scottish colleges for the students of divinity to conduct the public worship of the class by turns, and each, as he assumes this office, is supposed to extemporise a prayer. Chalmers, awake to the beauty and the force of the Lord's Prayer, used invariably to paraphrase it.

sought and obtained a situation of the sort in the spring of 1798; but the laird and lady seem to have been very silly people. They evidently did not know what was due to themselves, far less to the tutor of their sons. Yet his letters to his father, while suffering under probably absurd enough treatment, breathe a spirit scarcely worthy of his mental stature, and his biographer's comments on the whole transaction make things worse. The climax is that Chalmers quitted the place after five months' trial, and never sought for another. He returned to College, completed his course in the Divinity Hall, applied to the Presbytery of St. Andrew's to be admitted to his trials; and, though not quite nineteen years of age, carried his point. It was a highly irregular act on the part of the Presbytery, which, from time immemorial, had received no candidate under twenty-one. But Chalmers had a friend in the body who raked up an old Church statute, which he persuaded his colleagues to read according to his own peculiar interpretation; and on the assurance of this gentleman that the candidate was "a lad o' pregnant pairts," the "lad" took his place in the Sessions-house. He passed with credit; and on the 31st of July, 1799, received "a licence

to preach the gospel." It is rather curious that, entertaining the opinions which he did, Chalmers should have taken this step. No doubt the step was not, like ordination to the diaconate among us, irrevocable. The licensed preacher, or probationer, of the Kirk is still a layman. He is not so much as entitled to prefix the term Reverend to his name; and may at any moment return into civil life. But that Chalmers ever thought of stopping short at the point to which the probationer's licence carried him, there is nothing whatever to indicate. The truth seems to be that the transcendentalism which used to fill his mind when a boy with lofty visions of divine things, had subsided by this time into commonplace scepticism. He had no faith in anything, not even in the fixedness of moral right; and was prepared to earn a livelihood, either by preaching ethics, should a kirk fall to his share, or by turning his talents, of which he entertained a sufficiently exalted opinion, to any other account that might present itself.

Immediately after receiving his licence Chalmers set off to visit his eldest brother James at Liverpool. The journey, on foot, occupied a fortnight. On the 25th of August he preached for the first time in the Scotch church at Wigan; and on the follow-

ing Sunday delivered the same discourse in a chapel at Liverpool. James — a sharp, eccentric man — wrote thus to his father:—

"It is impossible for me to form an opinion of Thomas as yet; but the sermon he gave us in Liverpool, which was the same as we had in Wigan, was in general well liked. His mode of delivery is expressive, his language beautiful, and his arguments very forcible and strong. His sermon contained a due mixture both of the doctrinal and practical parts of religion; but I think it inclined rather more to the latter. The subject, however, required it. It is the opinion of those who pretend to be judges, that he will shine in the pulpit; but as yet he is rather awkward in his appearance. We, however, are at some pains in adjusting his dress, manner, &c., but he does not seem to pay any great regard to it himself. His mathematical studies seem to occupy more of his time than the religious."

Chalmers had expected to meet four of his brothers at James's house, and proposed to instruct the youngest — a sailor — in the principles of navigation. But the pupil did not arrive till October; and the lessons were scarcely begun when the prospect of some appointment — of what nature we are not told — recalled Thomas to Edinburgh. The appointment he did not secure: but he took lodgings, and made Edinburgh his head-quarters for two years. He supported himself entirely by teaching; and attended the lectures of Dr. Hope on Chemistry;

Dr. Robison on Natural Philosophy; and Dugald Stewart on Moral Philosophy. Of Robison he entertained the highest opinion, as did all who enjoyed the benefit of that admirable man's acquaintance. Stewart took his fancy less, and Hope he appears to have disliked and despised — probably because that successful professor gave less attention to his papers than he conceived them to deserve.

It is said by those who are not likely to be misinformed, that the private life of Chalmers during a portion, at least, of his residence in Edinburgh, was far from correct. Dr. Hanna is entirely, perhaps naturally, silent on the subject; but if he were aware of the fact, he ought, in our opinion, to have stated it frankly. For he acknowledges that Chalmers was by this time a disciple of Mirabaud as well as of Godwin; and Mirabaud did not so much as pretend to inculcate a strict moral code. But, whatever might be the extent of Chalmers's corporeal dissipation, his mind became by degrees better regulated under the wise teaching of Dr. Robison. Before the clear and unanswerable reasoning of the Christian philosopher, Mirabaud's wretched materialism gave way, and Chalmers so far regained the place from which he had fallen, that a belief in the existence of a spiritual God, and in the responsibility

of man in a future state, settled itself once more in his understanding.

In the spring of 1801 a negotiation was opened, through an old college friend, with a view to his settlement as assistant to the minister of Cavers, a retired parish in Teviotdale. Chalmers preached there;—and, his discourse being approved of by the unsophisticated congregation, the incumbent agreed to give him the post. Before entering upon his new duties, however, Chalmers paid a visit to St. Andrew's, where he found or fancied reasons for believing that his father's services, in support of the Hopes and Dundases, had met of late with an unworthy return. The virtuous indignation of a friend of the people stirred within him. He felt more and more the urgent need of "political emancipation for the masses;" and being unable to restrain himself, wrote to the minister of Cavers, his future chief, what we must be permitted to designate a very silly letter. Meanwhile new and better prospects opened before him. The death of one of the St. Andrew's professors bid fair to occasion a vacancy in a parish of which the College was patron; and Chalmers, like a prudent youth, made interest to secure the reversion. He had many friends among the professors, and a promise was made,

that, if any such contingency befel, he should not be forgotten.

For eleven months, or thereabouts, Chalmers officiated as assistant to Mr. Elliot, in Cavers. The greater part of the time he resided in the neighbouring manse of his friend Mr. Shaw, at Roberton; latterly he occupied lodgings in Hawick. He seems to have made himself sufficiently popular with all classes, and won the hearts of the farmers in particular by the hearty and jovial manner in which he threw himself into their carousals. But his wishes aspired all the while to a position of a different order. Dr. Brown had been removed to a chair in Glasgow, and the gentleman who succeeded to the care of Professor Vilant's class was about to resign it; Chalmers lost no time in canvassing for the assistantship, and he gained it. Forthwith his undivided attention was turned to the preparation of mathematical lectures. He withdrew from society, and laboured so assiduously at Hawick, that September, 1802, found him ready for his course in St. Andrew's.

In October the parish of Kilmany fell vacant, and in the following November Chalmers was presented to it. He entertained no scruples then on the subjects of plurality and calls. He knew that

for half the year it was physically impossible that he could reside in Kilmany; but his thoughts were much more occupied with visions of literary distinction for himself than with anxiety about the spiritual wants of others. We hear of no opposition made at the moment; but opposition arose by and bye, and Chalmers seems to have had his own impetuous and overbearing temper to thank for it. The truth is, that with the "intellectual birth" of which Dr. Hanna speaks, there came a prodigious change in the whole moral bearing of the man. He became suddenly conscious of power which he lacked judgment to control, and lost his balance entirely. Nothing would serve him but to strike out new and startling methods of teaching. He treated the boys in his class as if they had been the free citizens of a free republic; he made himself extremely popular among them, but it was at the expense of the popularity of his colleagues; and when the venerable professor under whom he served presumed to grant certificates without consulting him, he seized the first opportunity of a public examination in the college hall to rate him soundly. Dr. Vilant was astonished, and the rest of the authorities scandalized, nor can any one be sur-

prised to learn that from that time forth the favour of the Senatus Academicus was withdrawn.

Chalmers was ordained to the parish of Kilmany on the 12th of May, 1803. He had counted, as we have intimated, on being permitted to retain office as assistant professor, but he was deceived. Dr. Vilant at once gave him notice that after the close of the session his services would be dispensed with; and assigned as a reason that his manner of conveying instruction to the students was unsatisfactory. This was to wound Chalmers in two very sensitive parts at once. He was removed from an occupation which he liked, and driven back upon duties that were uncongenial to him, and — worse still — his abilities were called in question. The college had declared war against him, and he resolved to march, like another Hannibal, into the enemy's country. In a word, it soon became known that, on the return of the students to St. Andrew's, the young minister of Kilmany intended to open mathematical and chemical classes there on his own account. His father, among others, wrote earnestly to dissuade him from doing so — and his answer is highly characteristic of the man at this period: —

"I believe the measure will be opposed by a certain party of the St. Andrew's professors, but I am sure they will not be

able to ruin the success of my intended proceedings without having recourse to dishonourable practices. These artifices I shall be obliged to expose for my own vindication, but my chief anxiety is to reconcile you to the idea of not confining my whole attention to my ministerial employment. The fact is that no minister finds that necessary. Even at present I am able to devote as much time and as much attention to other subjects as I will be under the necessity of doing next winter; and, after all, I discharge my duties, I hope, in a satisfactory manner. With regard to non-residence, that is to last only for six months. I have never been called to any incidental duty through the week but once, and I have the assurance of my two neighbours that they will attend to every ministerial office that may be necessary. Your apprehensions with regard to the dissatisfaction of the parishioners are, I can assure you, quite groundless. I feel the footing on which I stand with them, and am certain that no serious or permanent offence will ever be excited."

The winter came, and with it the great campaign of science opened. Both town and gown were thrown into a ferment. Hard words passed, orally and in writing, with threats of prosecution, and we know not what besides; but the impetuosity of the lecturer carried the day; his rooms were crammed. It was to no purpose that the professors changed their lecture hours with a view to empty the private class-room of their rival. Chalmers met them at every turn, quietly changed his hours in like manner, and retained the whole of his pupils. At last, audacity and superior talent prevailed. The Senatus

found that it could do nothing — and the rivals one by one made overtures of peace; but another and more formidable enemy advanced upon the rear of the victor. The Presbytery threatened to take the matter up, and to proceed against Chalmers on a charge of neglecting his parish. We regret not to transcribe the whole of the paper which Chalmers prepared to give in as his defence. It is as perfect a specimen of egotistical rhodomontade as ever came under our observation; but the concluding sentences are all that we can give: —

"Compel me to retire from my classes, and you give a blow to the religious interests of my parish which all the punctualities of discipline will never restore. You render me the laughing-stock of the country: you cover me with infamy: you render me the object of public contempt and public execration. Compel me to retire, and I shall be fallen indeed; I would feel myself blighted in the eyes of all my acquaintances; I would never more lift up my face in society; I would bury myself in the oblivion of shame and solitude; I would hide me from the world; I would be overpowered by the feelings of my own disgrace; the torments of self-reflection would pursue me; they would haunt my dreams; they would lay me on a bed of torture; they would condemn me to a life of restless and never-ceasing anxiety. Death would be to me the most welcome of all messengers; it would cut short the remainder of my ignominious days; it would lay me in the grave's peaceful retreat; it would withdraw me from the agitations of a life that has been persecuted by the injustice of enemies, and still more distracted by the treachery of violated friendship."

Whether this awful storm in a puddle struck the Presbytery with terror, or that they thought it better to avoid a collision which might bring past irregularities to light, the evidence does not show; but the threatened proceedings against Chalmers never came on, except in the shape of a resolution by one minister, which nobody supported, and Chalmers continued to lecture throughout the session of 1804, as he had done in 1803, to large classes and with great credit to himself.

Between this date and the close of 1806 Chalmers seems to have led a life of much mental exertion and physical eccentricity. Not satisfied with lecturing in the winter at St. Andrew's, he took it into his head to lecture to his parishioners at Kilmany during the summer: more, as it appears, to the amazement than the edification of his audiences.* We find him next lieutenant and chaplain to a regiment of volunteers. But the most important of his proceedings was his candidature, first, for the professorship of mathematics at St. Andrew's, and

* Among other experiments the powers of some bleaching liquid were exhibited, which led to the following colloquy between two old women. "Our minister," said one, "is naething short o' a warlock; he was learning the folk to clean claes *but* (without) soap." "Eh, woman," replied the other, "I wush he would learn me to make parritch *but* meal."

next for a similar post in the University of Edinburgh. He was defeated on both occasions; but his Edinburgh struggle, if it accomplished nothing else, was the cause of his first appearance before the public as an author. The death of Dr. Robison having vacated the chair of natural philosophy, Mr. Macknight, one of the ministers of Edinburgh, and for some years Dr. Robison's assistant, made interest for the place in opposition to Mr. Playfair, who, though ultimately successful, appears for a while to have anticipated a different result. Playfair (also a parish minister) used all legitimate means of canvass, and addressed over and above a letter to the Lord Provost, in which he not only alleged that there were few Scottish clergymen who had attained to any eminence in mathematics or natural philosophy, but that the vigorous and successful pursuit of these sciences was incompatible with clerical duties and habits. This was an insult not only to himself, but to the whole of his order, which Chalmers could not brook. He drew up and printed a pamphlet, in which he lashed the reverend philosopher in a style of which, only a few years later, he was heartily ashamed.

In the December of this year one of his brothers — the gallant commander of a letter of mark —

died of consumption. The contemplation of his peaceful end operated, according to Dr. Hanna, in awakening in Thomas's heart better thoughts of that religion which he still taught without much believing it. This may be true; but of anything like a conversion, in the sense which Dr. Hanna would apply to the term, we can discover no trace. That his republican propensities, which in fact appear never to have been very inveterate, wore away as the French revolution held its course, there can be no doubt. He had long ago returned to the full Tory creed of his parentage, and now hated Buonaparte with all the intensity of a good Volunteer officer. But as to religious doctrine his opinions remained in that state which, robbing a man of all the comfort that arises out of a steadfast faith, keeps him still theoretically sensible of the moral beauty of Christianity, and convinced of its perfect adaptation to the wants of human nature. Indeed, his mind was too full of secular projects — he was too anxious to win a name for himself among the choice intellects of the day — to leave much room for higher considerations, except when forced to entertain them; and hence it came about that, though extremely popular in his parish both as a man and a preacher, he does not seem to have succeeded in

forming the characters of individuals, or rendering the general tone of society more pure and spiritual than it used to be. At the same time his life was not a useless one. Whatever came under the observation, either of his senses or his understanding, he examined thoroughly. He took a lively interest in national affairs, and earnestly desired to contribute his quota to the general instruction of the public mind. With this view, after an agreeable journey through the heart of England, including a visit to Oxford and Cambridge, and three weeks in London, not one hour of which was wasted, he returned to Kilmany, and sat down to the composition of his treatise on "The Extent and Stability of National Resources." The subject was not new to him, for he had been an early student of Adam Smith and other authorities in political economy. And taking the Tory side of the question, he handled it extremely well, bating only this point — that he gave the preference to direct over indirect taxation. Mr. Spence's pamphlet, entitled "Britain Independent of Commerce," got the start of him, however; — and as the two writers not only travelled over the same ground, but took, as far as they went, the same views, the later publication, though unquestionably of higher intrinsic worth, met with

less attention than the earlier. Chalmers printed his book in Edinburgh, and sent copies to London, for which he secured the active patronage, among other old friends, of the great rising genius of his own district, David Wilkie. But though the author watched every review, and did his utmost to stimulate the sale, it never came to a second edition. He was a good deal mortified — but not discouraged from further exertion.

We have now arrived at a stage in the history of this remarkable man, of which it is not too much to say that it constituted the hinge on which the tendencies of his whole moral existence turned. On the 27th of August, 1808, his sister Barbara, to whom he was greatly attached, died; and the smitten sorrower began almost immediately to take a deeper view of the things both of time and of eternity. He felt no disposition to withdraw into privacy; quite otherwise. Indeed, he appeared in the following spring for the first time in the General Assembly, and made a telling speech on the augmentation of poor benefices. But secular objects began, however, to take a secondary place in his meditations, and the distinctive truths of Christianity more and more to be brought forward in his pulpit. His journal also exhibits tokens of a growing desire to conform

in his personal habits more than he had heretofore done to the precepts of his Master. Perhaps it would be to try any honest diarist by too severe a test, were we draw a strict estimate of his moral condition from the entries which he makes. But undoubtedly there are expressions in the journal of Dr. Chalmers which lead to the persuasion that both now and to a late period in his life the animal propensities were more than ordinarily strong in him. From the year 1808, up well nigh to the abrupt closing of the book, we find constant lamentations over the turbulence of the flesh, with earnest, and we doubt not, effectual prayers for strength to put it down. From a somewhat overweening estimate of his own powers, and an irritable impatience of contradiction, he seems never to have entirely freed himself. But he undoubtedly strove to master these weaknesses; and, when conscious of having fallen into them, deeply lamented the circumstance.

He was in the first stage of this transition state when another incident added strength to the religious impulse. His uncle, Mr. Bellanden, a retired master of the navy, a man of great piety and worth, was found one evening in his bed-room dead, in the attitude of prayer. A panic fell upon the

household, from which Chalmers did not escape. He fancied that he too was to die soon and suddenly; and the idea grew into something like conviction when a fever laid him prostrate. Then, indeed, he communed with his own heart, and spared it not. Writing to a friend from Fincraigs, a farm-house to which he had withdrawn while the manse at Kilmany underwent repair, he thus expresses himself. How different is the tone of this letter from the flippancy and egotism of earlier specimens!—

"My confinement has fixed on my heart a very strong impression of the insignificance of time; an impression which, I trust, will not abandon me through I again reach the heyday of health. This should be the first step to another impression still more salutary, the magnitude of eternity. Strip human life of its connexion with a higher state of existence, and it is the illusion of an instant, an unmeaning farce, a series of visions and projects, and convulsive efforts, which terminate in nothing. I have been reading Pascal's Thoughts on Religion: you know his history — a man of the richest endowments, and whose youth was signalised by his profound and original speculations in mathematical science, but who could stop short in the brilliant career of discovery; who could resign all the splendours of literary reputation; who could renounce, without a sigh, all the distinctions which are conferred upon genius, and resolve to devote every talent and every hour to the defence and illustration of the Gospel. This, my dear sir, is superior to all Greek, to all Roman fame."

Some time before this Chalmers had agreed to assist Dr. (now Sir David) Brewster in the Edin-

burgh Encyclopædia; and among other papers undertook one upon Trigonometry. He now wrote to entreat that the article "Christianity" might be entrusted to him; and proposed to reside three or four months in St. Andrew's, in order that he might have constant access to the college library. His request was acceded to, and he sat down to the self-imposed task with all the ardour of one scarcely less anxious to gather conviction for himself than to convince others. That he succeeded perfectly there is no room for doubt. Making notes all the morning, like a student anxious to overtake the truth, he gave up his evenings to a course of reading which seems to have moulded the stuff acquired by the understanding into a living principle. Wilberforce's Practical View, Pascal's Thoughts, Scott's Force of Truth, Baxter on Conversion, and Young's Night Thoughts, appear to have been greatly esteemed. Writing to his brother Alexander in 1820, he says:—

"I stated to you that the effect of a very long confinement about ten years ago upon myself was to inspire me with a set of very serious resolutions, under which I wrote a journal, and made a laborious effort to elevate my practice to the standard of the Divine requirements. During the course, however, I got little satisfaction, and felt no repose. I remember that, somewhere about the year 1811, I had Wilberforce's "View" put into my hands, and, as I got on in reading it, felt myself on the eve of a

great revolution in all my opinions about Christianity. I am now most thoroughly of opinion—and it is an opinion founded on experience—that on the system of 'Do this and live' no peace, and even no true and worthy obedience, can ever be attained. It is, 'Believe in the Lord Jesus Christ and thou shalt be saved.' Where this belief enters the heart, joy and confidence enter along with it. The righteousness which we try to work out for ourselves eludes our impotent grasp; and never can a soul arrive at true and permanent rest in the pursuit of this object. The righteousness which by faith we put on secures our acceptance with God, and secures our interest in his promises, and gives us a part in those sanctifying influences by which we are enabled to do with aid from on high what we never can do without it. We look to God in a new light: we see him as a reconciled father: that love to Him which terror scares away re-enters the heart, and with a new principle and a new power we become new creatures in Jesus Christ our Lord."

Had Chalmers been more familiar with our best divines, or more at home in the niceties of the learned languages, he would have known that such expressions, when used under the impulse of feeling, however pure, are often likely to mislead. Indeed it is the misfortune of the party to which he henceforth attached himself, that by the undiscriminating use of terms, which are just and proper only in the sense applied to them by the inspired writers, they offend the judgments of the earnest and the thoughtful almost as much as they abuse the credulity of the ignorant. Men do not succeed now, any more

than long ago, in "putting on the righteousness which is of faith," except after continuous self-control, vigilance, and prayer: for it is "the narrow way," as we read, "that leads to life," not the broad and easy path of mere impulses. In like manner, though the expression "Believe in the Lord Jesus Christ, and thou shalt be saved," be strictly apostolic, it is one which neither an apostle nor anybody else could safely address, except to persons who had given some evidence at least that "they were pricked at the heart"—if they did not, like St. Peter's auditors on the day of Pentecost, go farther and demand, "Men and brethren, what shall we do?" Repentance—change of mind—μετανοια—*must* precede faith, wherever men are living in practical forgetfulness of the obligations under which, as members of Christ's Church or family upon earth, they have come. At the same time we are far from accusing either Chalmers, or the authors from whom he mainly derived his views, of the smallest desire to countenance the impious absurdities of Antinomianism. The utmost extent to which they go is to yield, in their own persons, too much to feeling; and to lead others, by their manner of expressing themselves, it may be into a worse error. They are perfectly right in attributing

all the praise to God — all the merit to the atonement. But while they speak of the righteousness that is of faith, and rejoice in the justification that comes freely in Christ Jesus, they would do well to remember that the same authority which establishes these truths establishes another, namely, that each individual man is required "to work out his own salvation with fear and trembling," and "to labour that he may make his calling and election sure."

From this time forth Chalmers was an altered man. He ceased to prosecute mathematical researches. Chemistry he abandoned, except as a subject for social discussion; and devoting himself to the work of his calling, visited, preached, conversed, and wrote, as if the single object of his exertions were to advance the moral and religious welfare of his fellow-creatures.

In the year 1811 he began to write for the "Christian Instructor," an Edinburgh magazine, of which the late Dr. Andrew Thomson was editor. There was an asperity in Thomson's criticism which outraged, from time to time, the less atrabilious nature of his contributor; yet Thomson had many manly and generous qualities — on the whole they worked in a very friendly spirit together — and the

"Christian Instructor" made its way with a considerable section of the public. But perhaps the most interesting episode in Chalmers's history at this time was his correspondence with Mr. James Anderson, the son of a banker in Dundee, who, when a youth of eighteen, had been fascinated by Chalmers's reputation as a man of science, and sought his acquaintance. The young man's advances were met with cordiality; and a friendship as romantic as any of which even classic tradition makes mention, sprang up between them. At first their letters discussed literary and scientific subjects merely; by-and-by religion began to mix itself up with these things, and Chalmers, in explaining the change which had been wrought on himself, touched a new spring in the moral being of his friend. Dr. Hanna's selection from this correspondence will, we suspect, be regarded by many as the most deeply interesting chapter in the book before us; and the sad blighting of hopes called forth at its opening will not detract from its merits.

The course of life begun in 1810, and continued through 1811, was steadily followed out in 1812. His theological reading extended itself, and embraced, among other books, Lardner's Jewish and Heathen Testimonies, Prideaux' Connexion, Mac-

knight's Credibility, Hannah More's Practical Piety, Buchanan's Researches, The Life of Dodderidge by Orton, and Paley's masterpiece, the Horæ Paulinæ. This is rather a strange medley, no doubt, yet in one respect it suited well the peculiar temperament of the mind engaged:—for there could be no system, no groundwork indeed on which to rest one, in desultory study like this; and Chalmers was the last person in the world to systematise on matters of faith. But better things were added. Chalmers read the Bible carefully in English, and began to study the New Testament in Greek. It was the first time he appears to have undertaken this labour, and it soon became a labour of love. Many years afterwards, when referring in his correspondence to the process now going on in his own mind, and which he was then desirous of seeing stirred in another, he says:—

"But there are other books which might be as effectually instrumental in working the desirable change; and in defect of them all there is the Bible, whose doctrines I well remember I then saw in an altogether new light, and could feel a power and a preciousness in passages which I formerly read with heedlessness, and *even with disgust.* I do think, that without disparagement to human authorship, which in many instances is in the highest degree helpful to the inquirer, still the main road to light and comfort, and a solid establishment in the way

that leadeth to life everlasting, is the reading of the Scriptures with prayer."

The British and Foreign Bible Society, which had been struggling into existence during some years in England, made about this time its views and principles known in Scotland. They were zealously embraced by Chalmers, who wrote pamphlets and got up local associations in its support. Meanwhile his exertions were unintermitting, both in the pulpit and by frequent pastoral visits at their own homes, to bring his people to a sense of their position as professing Christians. His hospitalities, likewise, though simple—perhaps rude—were unbounded; and he acquired over a continually widening circle of acquaintances, an influence which seemed to become firm in exact proportion to the Christian purposes which it was meant to serve.

In August of this year Chalmers was married to a Miss Pratt—a propitious union, founded on sober and elevated sentiments. His life, from this date up to the early winter of 1814, was perhaps as happy as can well be the lives even of good men. As a preacher he grew continually more effective. He spoke from the heart, with an eloquence and power which told equally upon the

unlettered peasant and the fastidious scholar; and the effects showed themselves, not alone in the crowded state of his church, but in the daily turning of sinners from the error of their ways. Dr. Hanna has recorded details of the impression made upon two country lads by one of his appeals, which will well repay perusal. Neither was his pen idle. He defended, in the Christian Instructor, the cause of missions to the heathen against the merciless onslaught of Sydney Smith in the Edinburgh Review; and, at the earnest request of the proprietors of the Edinburgh Encyclopædia, consented to correct and bring out as a separate publication the article "Christianity," which had attracted so much notice in its original shape. His studies began also to be turned a good deal to the subject of pauperism—on which he seems to have at an earlier period taken up a strong impression in favour of Malthus's views—but of this matter hereafter. His family correspondence refers to little else than the religious impressions to which he was himself subject, and which he desired to communicate to others; while his contributions to the periodical press all tended in the same direction, namely, to elevate the religious principle, and to combat such objections as, either

directly or indirectly, were brought against the authority of the Bible. Among other works which he reviewed in the "Instructor" was Cuvier's Theory of the Earth, which, appearing at this time in an English dress, created a great sensation in Edinburgh. And to Chalmers belongs the merit of having first endeavoured to accomplish that reconciliation between the discoveries of geology and the Mosaic account of the cosmogony, which is now universally accepted as complete, both by philosophers and divines.

His fame as a preacher had by this time spread far beyond the limits of Kilmany; and the tone of his later writings was rapidly removing whatever prejudice his more youthful escapades, both in conduct and opinion, might have created against him. By and by a vacancy occurred in the Tron Church of Glasgow; and it occurred to certain members of the Town Council, the patrons, that it would be well to present him to the living. A good deal of negotiation and coquetting followed; but the result was that several esteemed citizens were deputed to steal, so to speak, upon Chalmers's privacy, and to judge for themselves whether his ordinary style of pulpit eloquence was as effective as general rumour described it. One and all, they

returned from their reconnoissances perfectly satisfied, and a powerful discourse delivered at the funeral of the minister of Bendoch, in Perthshire, consummated the triumph of the orator.* But a good deal remained to be done: Chalmers—to his honour be it told—declined to give any specific pledge that he would accept the benefice, were it even offered, and positively refused to strengthen, by any canvass of his own, the hands of his supporters. His friends, however, were earnest and indefatigable; and in spite of "the Duke of Montrose, Sir Islay Campbell, the College interest, and the late and present Provosts," they by and by carried their point. The matter being thus arranged, Chalmers no longer hesitated. All his wishes had been on the side of the translation throughout; indeed, the very record which he committed to paper of the balancing of arguments in his own mind, shows that with him, as well as with most men, the pure ore of principle did not escape some slight intermixture of alloy. The

* Mr. Honey, the minister here alluded to, an old college friend of Chalmers, on an occasion of shipwreck off the coast at St. Andrew's, made his way, in the dead of winter, through a furious surf, and saved a whole sloop's crew; the exertion was too great for his strength, and a two years' decline ended in the good man's death.

letter also which he addressed to a Mr. Tennant of Glasgow, while as yet the issues of the contest were doubtful, will bear more than one interpretation. In form, it is a refusal "to help on, by any declaration or step," the result which his correspondent was seeking: in substance, it is as able a canvassing document as ever proceeded from the pen of one who is expected to say *Nolo episcopari;* and being widely circulated, it produced among the town-councillors the effect which, without doubt, it was expected to do. But conceding all this—allowing, as we think his best friends must do, that Chalmers could not but desire, on many accounts, to be removed to a wider sphere, it is past dispute that for the people of Kilmany he entertained a sincere affection; his parting from them was a very painful duty to himself: to his poor parishioners it was the severance of their heart-strings.

Chalmers's first sermon in the Tron Church of Glasgow was delivered on the 30th of March, 1815. It riveted the attention of a crowded audience, and established at once the popularity of the preacher. More than one light spirit was then first reached, rebuked, and overawed. Week after week sustained and heightened the impression

made. He soon won the hearts as well as the admiration of his new flock, and he never lost them. We can make no attempt to delineate in full his mode of life and course of labour during the eight years of his ministrations in this great city. But certain leading objects which he sought to accomplish, and the means which he devised of achieving them, stand quite apart from the ordinary tenor of a pastor's career, and must not be passed without some, however inadequate, notice.

Before Chalmers removed to Glasgow he was fully aware of the general state of feeling which pervaded that great mart of commerce, and of the parts which the Clergy were expected and accustomed to enact in society. The religious principle appears to have nearly lost itself in mere formalism. Most people, at least among the richer classes, took their hebdomadal places in church—but as they were not drawn thither by any desire of spiritual edification, so the effects of these Sunday exercises were very little visible in their proceedings during the week. They bought and sold —schemed and speculated—ate, and drank, and slept—with characters which rose and fell according to their successes or mishaps in business. The Clergy were quite incapable of making head

against this evil. Some of them had long laboured beyond both their strength and their means—and Dr. Hanna should not have omitted to say so distinctly:—but their numbers were totally inadequate, and many inconvenient, not to say bad, customs had been forced upon them by their parishioners. They were kept employed in matters which ought not to have been thrown upon them. As managing committee-men on almost all occasions of secular improvement they played a conspicuous part. No charitable scheme, whether public or private, could be carried on without them; and in such sewerage and scavenging as then occupied men's attention they were great. But in, it seems, the majority of the parishes even the routine visits of Minister and Elders had fallen into disuse—so that the poor were quite neglected, except when the pastor himself dispensed to them from his scanty revenue, or they came for their dole out of some benevolent fund. The more important parishes had so completely outgrown the educational arrangements made by the constitution of the Church, that a vast majority of the children of the working classes were growing up in worse than heathen ignorance. Meanwhile, the citizens—not content to throw the burthen of public busi-

ness upon the pastors—insisted on their attendance at all symposia, whether public or private. No birthday dinner could be eaten, no civic feast occur, but that the city clergy must be present; and from the unbounded hospitalities of individuals the absence of the minister of the parish would have been considered as a personal slight. Men so situated could hardly find time either for private study, or the decent discharge of their official duties; and not a few, in utter weariness of heart and spirit, were found to have neglected both.

Before he quitted Kilmany, Chalmers expressed his determination to break through these customs at all hazards. He adhered to that determination. For a brief space, and with the single view of not giving offence, he accepted the invitations of his parishioners, and opened his doors to their visits at all hours; but as soon as he could make the citizens understand that it was their good, and not his own, which he was seeking, he withdrew from the vortex of social intercourse, and never entered it again. He largely increased, instead of diminishing, his own influence by the proceeding.

Again, after attending for a good while to every *secular* call, and sitting many an hour at a time in grave deliberation as to whether a gutter should be

shut up or left open, he resolved to break loose from this species of thraldom in like manner, and he adopted a very original method of making his people aware of the fact. On the 13th of October, 1816, the Doctor — for he had now received that degree in Divinity from the Glasgow University — gave out as the text of his morning's discourse the words, "Then the twelve called the multitude of the disciples unto them, and said, Is it reason that we should leave the word of God and serve tables?" This was followed by such a minute detail of the multiform exactions that were made upon the time of the ministers of Glasgow — of the calls to which they were subjected, within doors and without — the papers they were required to sign, the schedules to fill up — that curiosity soon grew into wonder, with a considerable tendency to the ridiculous. Nor will our readers be much surprised at the varied effect of a discourse which contained, among others equally peculiar, the following passage: —

"I have already said much of the interruption and the labour which the public charities of the place bring along with them; and yet I have not told you one half the amount of it. I have only insisted on that part of it which takes a minister from his house, and from which the minister, at the expense of a little odium, can at all times protect himself, by the determinate habit of sitting immoveable under every call and every appli-

cation. All that arrangement which takes a minister away from his house may be evaded—but how shall he be able to extricate himself from the besetting inconveniences of such an arrangement as gives to the whole population of a neighbourhood a constant and ever moving tendency towards the house of the minister? The patronage, with which I think it is his heavy misfortune to be encumbered, gives him a share in the disposal of innumerable vacancies, and each vacancy gives rise to innumerable candidates, and each candidate is sure to strengthen his chance of success by stirring up a whole round of acquaintances, who, in the various forms of written and of personal entreaty, discharge their wishes on the minister, in the shape of innumerable applications. It is fair to observe, however, that the turmoil of all this electioneering has its times and its seasons. It does not keep by him in the form of a steady monsoon—it comes upon him more in the semblance of a hurricane; and like the hurricanes of the atmosphere, it has its months of violence and its intervals of periodical cessation. I shall only say, that when it does come, the power of Contemplation takes to herself wings and flies away. She cannot live and flourish in the whirlwind of all that noise and confusion, by which her retreat is so boisterously agitated. She sickens and grows pale at every quivering of the household bell, and at every volley from the household door, by which the loud notes of impatience march along the passage, and force an impetuous announcement into every chamber of the dwelling place. She finds this too much for her. These rude and incessant visitations fatigue and exhaust her, and at length banish her entirely; nor will she suffer either force or flattery to detain her in a mansion invaded by the din of such turbulent and uncongenial elements."

The discourse thus begun in the morning, was resumed and carried through in the same spirit

of mixed irony and pathos in the afternoon, and it effected its purpose. From that day forth, Chalmers ceased to be at the beck and call of every applicant for the insertion of a name in the Town Hospital books; and meetings summoned to decide whether pork broth or ox-head should be administered in that admirable institution saw him no more. But Chalmers had cut out work for himself, and for others too, far more in the spirit of the calling to which he had devoted his energies.

We have spoken of the decay, both of ministerial and diaconal superintendence, among the poor of too many districts in Glasgow. Chalmers determined to revive both in the Tron parish. Attended by one of his Elders, he began in January 1816 a course of action which, on the most moderate computation, he perceived would require at least two years to render it complete. There were about twelve thousand souls within his bounds, and he determined to visit each family in its own domicile. It was a tremendous task, and could not have been got through at all, had he attempted more in the first instance than to address a few kindly words of inquiry and good will to the various households, as he stood on the threshold of each. "Doctor," said an old and pious widow, "you will surely not

leave me without offering up a prayer." "If I were to pray in every house I enter," replied he, good humouredly, "it would take me ten years to get through the work"—and so with characteristic impetuosity he rushed from house to house, dragging a reluctant and very weary Elder after him. But he soon discovered that this method of proceeding would accomplish little. He bethought him of enlisting on the side of Christian benevolence the sympathies of a younger and less apathetic class of persons than had heretofore supplied elders to the Kirk in that city, and he succeeded. Having paved the way by a skilfully arranged speech, which he delivered at an anniversary meeting of the Glasgow Bible Society, he caused the names of certain parties, in whom he reposed confidence, to be proposed to the Kirk Session; and on the 20th of December, 1816, they were ordained to the eldership. On that occasion the Doctor delivered to them a charge, in which will be found embodied the leading principles of that scheme for the management of the parochial poor, of which we shall presently speak at some length. But it may be well if, ere going farther, we remind our southern readers of the nature and duties of the eldership in Scotland.

The Elder, sometimes confounded with the churchwarden and sidesman among ourselves, is quite different from both. He has no charge whatever of the fabric of the church, nor has he any control over the pews. His functions are partly spiritual, partly material. His ordination—for such is the term, and the hands of his pastor and the other elders are laid on his head at his induction—without conferring on him the character or authority of a minister, entitles him to visit from house to house, and to pray and read and expound the Scriptures with the inmates. Thus far he becomes a semi-spiritual person, while in his lay capacity he takes his turn to stand beside the plate into which the offertories of the congregation are thrown, and afterwards helps to distribute the alms so collected. "Till Dr. Chalmers came to Glasgow," says Mr. David Stow, the able superintendent of Training Institution for Schoolmasters, "parochial Christian influence was a mere name; it was not systematic—it was not understood; there was not the machinery for the moral elevation of a town population. The people were let alone. Some of the elders of the Tron Church were excellent men, but their chief duty was to stand at the plate, receive the free-will offerings of the congregation as

they entered, and distribute them to the poor by a monthly allowance. Their spiritual exertions were but small, and almost exclusively confined to a few of the sick. Chalmers revised all this. He assigned to each of his young elders a district, and exhorted and charged him to look after it; and as the best spirit animated his hearers, a new light was not slow in breaking over some of the most benighted portions of the city." We strongly recommend to the consideration of our own London clergy whether or not a device analogous to that which Chalmers rendered so effectual might not by them be adopted. Far be it from us to undervalue the help that is rendered to religion by Scripture-readers and Ladies' Visiting Associations. In a great majority of cases we believe that Scripture-readers are sincere and pious men, and more than one instance occurs to us in which the poor have owed to such ministrants all that they ever knew of the Bible. But, as a class, the Scripture-readers are not fitted to acquire or permanently to exercise an influence over a parish for good. They are too much taken from an order in society which is little, if at all, raised above the humblest; their acquirements rarely enable them to go beyond the mere reading of the English text, and that sometimes imperfectly. Now we are

humbly of opinion that if the co-operation of the laity is to be appealed to at all—and without the co-operation of the laity we confess that to us any continuous effort to Christianize society seems impossible—we must not rely upon hired agents taken from among the poor. Chalmers well says, "I know of nothing which would tell more effectually in the way of humanising our families than if so pure an intercourse were going on as an intercourse of piety between our men of reputable station on the one hand and our men of labour and poverty on the other. I know of nothing which would serve more powerfully to bring and to harmonize into one firm system of social order the various classes of our community." He thus expands his view:—

"I know not a finer exhibition, on the one hand, than the man of wealth acting the man of piety, and throwing the goodly adornment of Christian benevolence over the splendour of those civil distinctions which give a weight and a lustre to his name in society. I know not a more wholesome influence, on the other, than that which such a man must carry around him when he enters the habitations of the peasantry, and dignifies by his presence the people who occupy them, and talks with them as the heirs of one hope and of one immortality, and cheers, by the united power of religion and of sympathy, the very humblest of misfortune's generation, and convinces them of a real and longing affection after their best interests, and leaves them with the impression that here at least is one man who is our friend; that here at least is one proof that we are not altogether destitute of consideration amongst our fellows; that

here at least is one quarter on which our confidence may rest —aye, and amidst all the insignificance in which we lie buried from the observation of society, we are sure at least of one who, in the most exalted sense of the term, is ever ready to befriend us, and to look after us, and to care for us."

There may be—there doubtless is—some poetic exaggeration in this picture, particularly if we compare it with the working of the visiting societies which are usual here in England, and with their results. But let us not forget that in a large majority of cases our visitors are not *men* of a better station;—and the question is—can *women* of pure minds and cultivated feelings be quite in their proper place among the slums and back alleys of the Seven Dials? They either never encounter at all the male portions of the households which they take under their charge, or else they suffer for it. But *men* could face the contaminations which in the beginning of such a career are sure to meet all who intrude into the haunts of misery and vice, and in the end—if earnest in the work—would root them out. Nor let us be told, in times so pregnant with change, that it is contrary to the spirit and constitution of the Church of England to secularize the office of the ministry. Is that office not secularized by the support which it derives from the

labours of the Catechist and the Scripture-reader? Would it suffer more damage if we borrowed from the Kirk an institution which seems to unite in itself the functions of the Lay-visitor and the Scripture-reader, and, from the social position of the individuals on whom the duties would devolve, holds out the assurance that the work would be far better done? This is too grave a subject to be touched upon without much reflection: but so far we feel bound to express our own conviction that the Church of England must either strengthen herself by increased reliance on the zeal of her lay-members, or—in spite of all her, as we think, unrivalled merits—she will be unable to maintain her position in the country, which, if she went to the wall, would inevitably undergo a root-and-branch revolution. Nor is it in one direction only that her lay-strength may be brought to tell. Take, for example, the question which now so much agitates the clerical mind—the revival of synodical action. Is any person in holy orders so little informed of the state of public feeling as to suppose that the Houses of Convocation will ever be permitted to meet for the transaction of serious business so long as their Constitution shall remain as it now is? But give to it the modification which

a judicious intermixture of the lay element would afford, and the whole bearings of the case are changed. We can perfectly understand the reluctance of the responsible servants of the Crown to submit its supremacy in causes spiritual to be canvassed by exclusive assemblies of clerks. As a body the clergy are not men of business, and their tenacity on points where the rights or privileges of their own order seem to be affected surpasses that of women. But let lay-lords, in fair proportion, either nominated by the Crown or chosen, like the Scotch and Irish representative peers, by their own body, sit with the bishops; and lay-commoners cooperate with clerks in the House of Proctors; and the objections of those whose duty it is to be jealous of the prerogatives of the Crown would — or ought to — fall to the ground. In fact, some arrangement of this sort appears to be quite as much due to the dignity of the Crown as to the rights of the Church; for the repeal of the Test and Corporation Acts, and the measure of Roman-Catholic Emancipation, entirely changed the position in which both Church and Crown had previously stood towards the legislature. So long as it was necessary, to entitle him to a seat in either House of Parliament, that a man should at least profess to be in commu-

nion with one or other of the established Churches, both Crown and Church had all the security against unjust laws in the government of the latter which they could reasonably desire. But now, when all religious tests are abolished, it seems not only equitable, but necessary, that, as far at least as questions of doctrine and discipline are concerned, the Church, subject to the Crown's approval, should legislate for herself. *The Church*, however, has another and higher sense than the common application of the term. It is one thing to give to *the Church* a right to legislate on these heads; it is quite another to commit the power exclusively to her Clergy; and the clergy will do well if they take the earliest opportunity of proving that the former is the object which they seek in the agitation now going forward.*

* We cannot pretend to discuss, incidentally, a question so important as is involved in the revival of Convocation. But on one head our mind is quite made up. A convocation which should meet when Parliament met, and continue sitting while Parliament sits, would destroy any church in the world in one session. The field of labour is too limited; and when men invested with certain powers meet day after day, having no real business to transact, they seldom fail to make business to their own and the public hurt.—If ever Convocation is to be called into active life again, it must be in a new form; and as a body which shall meet not regularly, but on such occasions only as may demand the grave consideration of the Church.

And so, we are inclined to say, it would be both just and politic to act in all arrangements subordinate to the highest. Why might not every diocese have its synod, every archdeaconry its sub-synod, and every parish its court of session — the decisions of each court being subject to an appeal to the court above — all ultimately looking to Convocation and the Crown? We venture to assert that the revival of a system of action like this, which is entirely consonant with the usages of the third and fourth centuries, would do more to attach the laity of England to the church of their fathers than all the efforts of all Tractarians, whether High Church or Low Church, put together; and we further believe that the work of the ministry itself would be done with tenfold greater effect, because, in every sidesman or elder, chosen on account of his piety and moral worth, the clergyman would find a zealous and intelligent co-operator.

Chalmers's next step was to establish Sunday-schools for the hitherto neglected children of the poor. And here again he looked about for earnest volunteers, who soon gathered round him in sufficient numbers. He divided the parish into districts, and, hiring a room in each, he opened it for school purposes, and placed it under the general

superintendence of one of his unpaid teachers. The districts varied in size according to the condition of the inhabitants, some comprehending only single *closes*, others ranging over several streets: — but the schools were all conducted on the same principle. No young person was admitted unless he were able to read the Bible with tolerable fluency. Thus the disheartening labour of teaching the alphabet was spared, and the opportunity afforded of at once entering upon the sense and purpose of the Scriptures, and the institution of the Christian scheme. It was the custom of the Society to hold periodical meetings, when results and methods were compared. At the end of two years 1200 young persons appeared regularly and cheerfully in these district Sunday-schools, where with excellent discipline the greatest kindness was shown to them; and it was the more valued that it never came in the shape of gifts, prizes, or even of medals. Another most important link was thus formed between the people and their pastor, for the voluntary teachers were soon invited to act as assistants to the elders. They visited the parents of the children, and the benefit to all parties was immense.

Notwithstanding Chalmers's now unrivalled reputation and authority in the place, his schemes found no immediate favour among the wealthier

even of his own parishioners. These took occasion to signify their aversion to a new and systematic interference with the proper domestic culture of the young. A good deal was said, too, about requiring the laity to undertake the duties of the clergy, and a general spread of fanaticism was predicted as the inevitable consequence of the effort, should it succeed. Chalmers encountered this hostility in his own way. He delivered from his pulpit such a vigorous defence that at all events the mouth of the reprover was shut. The work went on, and its beneficial results were ere long patent and undeniable.

The fame of these proceedings was not confined to Glasgow. Chalmers's reputation had by this time risen to a pitch beyond that which had ever before been reached by any Presbyterian minister in Scotland. Neither his parochial visitations nor the Sunday-schools interfered with the growth of his eloquence, or with his appeals to the press. There was a custom in Glasgow which imposed upon the clergy the duty of preaching by turns in the Tron Church on Thursday. Chalmers entered into it heartily, and there delivered the Astronomical Sermons which were collected and published in 1817. Crowds went to hear him. Merchants and

clerks deserted their desks — students in the college absented themselves from their classes — operatives quitted their looms — that they might listen to one who spoke so eloquently of the wonders of Creation. It happened that at this time the principal charge in the collegiate church of Stirling became vacant, and the Magistrates offered it to Chalmers. His acceptance would have at once added considerably to his income, and relieved him from a pressure of labour which already began to overburthen him; but he unhesitatingly declined. He believed that there was a peculiar line of duty chalked out for him, and he would not abandon it.

It was at this period that for the third time he visited London. On former occasions he had come and gone unnoticed, save by a few private friends; now it was a very different case. His Astronomical Sermons had been read by all the leading wits of the day. Canning was in raptures — Sir James Mackintosh full of them. Bobus Smith — *frater haud impar* of the immortal Sydney — permitted himself to be carried away with the stream. Besides these, Wilberforce, Romilly, Huskisson, Lord Binning, Lord Elgin, Lord Harrowby, and many more of rank and influence, forthwith sought him out. They formed part of his congregation wher-

ever he preached, and vied with one another in their anxiety to do him honour in society. If the balance of a judgment so beset did lean for a moment to one side, who will wonder? Yet there is nothing to show that any lasting impression was made upon the character of the man. He never ceased to be the same impetuous, enthusiastic, earnest — perhaps vain — yet simple-minded person, that he had been from the hour when study, in the anticipation of sudden death, fairly awoke the religious principle within him.

The management of the poor had long been to Chalmers a favourite object of inquiry; and in 1817, after his return from London, he undertook to write an article on it for the Edinburgh Review. In this eloquent though somewhat verbose performance there were abundant traces of that perplexity of ideas into which a hasty devouring of blue-books had thrown him. Out of chaos, however, arises order; and Chalmers, after unmitigated abuse of the English poor-law system, sat down to devise some expedient of his own by which pauperism might be met independently of all compulsory rating whatever. This affair constitutes another marking feature in his career.

Though the law of Scotland, like that of Eng-

land, had always recognised the right of the destitute to be supported, the practice of levying rates for the purpose was, in 1818, so nearly ignored in practice, that except among the border districts, where the influence of English example told, not twenty country parishes acted upon it. Voluntary contributions at the church doors made up the ordinary fund out of which relief was supplied." Where the population was scanty, this system of parochial management worked well. Individuals might, and often did, suffer great privations; but the spirit of independence was kept alive; and while the assessed parishes of England were paying on an average about 1000*l.* annually for the maintenance of the poor in every 1000 parishioners, in the unassessed parishes of Scotland the expenditure never rose above 50*l.*, and often fell as low as 10*l.*

This was the case in rural districts, and it sufficed; in crowded towns, except where valuable *mortifications* supplied the gap, assessment had been found unavoidably necessary.

In Glasgow, although the indigent were required to apply to the elders of their districts, it did not rest with the elders to grant relief. All that even a particular Kirk Session could do was to place the

name on its own poor-roll, and present this monthly to the committee of the Town Hospital. The collections at the church doors, as well as the proceeds of the assessments, were all handed over to this Hospital, which thus became the general almoner for the city. It was not likely that, under such a system, any great pains should be taken to inquire into the cases of individuals, who did not become chargeable so much to their own parishes as to the town at large; and fresh names were the more readily taken on the roll, that in exact proportion to the growth of pauperism in any particular district, the fund placed at the disposal of the Kirk Session became relieved; for it was part of the anomalous system that the proceeds of the compulsory rate were applied only where the Kirk Session made it appear that the poor had outrun the extent of the voluntary collections.

"We know not," says Chalmers, "how it was possible to devise a more likely arrangement for lulling the vigilance of those who stood at the outposts. To station one body of men at the entrance of pauperism, and burden them only with the lighter expenses of its outset, from which they have a sure prospect of being relieved by another body of men, who stand charged with the trouble and expense of its finished maturity, there could scarcely have been set a going a more mischievous process of acceleration towards all the miseries and corruptions which are attendant on the overgrown charity of England."

It had come to be Chalmers's fixed opinion that neither in town nor in country can *ordinary* pauperism ever get ahead of the wise distribution of voluntary alms. But then, to accomplish this, he explained that town parishes must be subdivided, that more churches must be built, and that to each Kirk Session must be left the uncontrolled disposal of its own funds. He had returned but a short time from London when, as a step preliminary to all others, he began to agitate strenuously for a large increase of churches.

Preaching and publishing, and addressing public meetings and private circles continually, at last he so far prevailed, that to a new church, already in progress, the city authorities agreed to annex a distinct population, and to leave the entire management of its pauperism, as well as the lead in educational things, to the minister and Kirk Session. An offer of this new charge—the parish of St. John—followed as a matter of course; and the terms on which he accepted it are clearly explained in a letter to the Provost.

After dwelling on the necessity for a strict enforcement of the law of residence as between the new parish and the others in the city, so that there might be no intrusion or confusion of paupers, he

thus guards the expression of his confidence in the adequacy of a body of elders to provide, from the voluntary alms of the people in a parish, for all legitimate claimants:—

"I beg to be distinctly understood that I do not consider the revenue of the Kirk Session to be at all applicable to those extraordinary cases which are produced by any sudden and unlooked-for depression in the state of our manufactures. Nor, if ever there shall be a call for pecuniary aid on this ground, do I undertake to provide for it out of our ordinary means, but will either meet it by a parochial subscription, or by taking a full share of any such general measure as may be thought expedient. Your lordship will not fail to observe that if the new cases of pauperism accumulate upon us at the rate at which they have done formerly, they would soon overtake our present collections. And yet my confidence in a successful result is not at all founded on the expected magnitude of my future collections, but upon the care with which the distribution will be conducted, — a care and an attention which I despair of ever being able to stimulate effectually, till I obtain an arrangement by which my session shall be left to square its own separate expenditure by its own separate and peculiar resources. At the same time I can also, with such an arrangement, stimulate more effectually than before the liberality of my congregation; and with this twofold advantage. I am hopeful, not merely of being able to overtake the whole pauperism of St. John's, but of leaving a large surplus applicable to other objects. What I propose to do with the surplus is, to apply it, as we are able, to the erection and endowment of parochial schools, for the purpose of meeting our people, not with gratuitous education, but with good education, on the same terms at which it is had in country parishes."

Chalmers wrote this letter on the 3rd of August, 1819. On the 9th, having withdrawn, for relaxation and sea air, into Fife, he received a communication from Sir George Mackenzie and Dr. Brewster, entreating him to allow his name to be introduced into the list of candidates for the chair of Natural Philosophy in Edinburgh, just rendered vacant by the death of Playfair. This was a sore temptation; for amidst all his triumphs as a preacher, author, and political economist, Chalmers had never been able to wean himself from the desire of finally reaching the position of professor in one of the universities. But he resisted it manfully, and used the opportunity as a means whereby his views, in regard to the management of St. John's parish, might more strenuously be enforced. He had still many difficulties to surmount—many mortifications to suffer—but in the end he prevailed. On the 26th of August he preached his first sermon in St. John's church, as minister of that parish.

Of the success which attended his scheme during the three years and a half that he superintended it, there can be no question. The population amounted to 10,000 souls. The expenditure on the poor, when he entered upon his ministration,

including sessional relief from the Town Hospital, did not fall short of 1400*l.* He took all the sessional poor in hand at an annual outlay of 190*l.*; all the Town Hospital pensioners for 90*l.*; and reduced the general expenditure to 280*l.* per annum. But his collections at the church door never fell short of 480*l.*, so that he had a fund at his disposal, amounting annually to 200*l.*, wherewith to execute his more general purposes for the benefit of the parish. The liberality of his people seemed to expand in proportion as the views of their pastor triumphed. After endowing a parochial school to the extent of 500*l.*, the session of St. John's still retained in hand a balance of 800*l.*, which had flowed in from various sources, and was rendered applicable to every conceivable emergency. But the grand result unfortunately confirmed an opinion, which had been expressed with unnecessary acrimony during the progress of the experiment, that as only Chalmers could have set such a machine in motion, so no hand except his own would ever be able to keep it in work. The truth is, that he had by this time gained such a perfect ascendency over the minds of a little knot of devoted admirers, that there was no amount of personal exertion which they hesitated to undergo

at his bidding. Chalmers's system is, we doubt not, too familiar to the recollections of the great majority of our readers to render a minute description necessary here. Its chief merit lay in a wise distribution of labour, and the exercise of untiring vigilance on the part of agents, who, having each a limited district to superintend, soon made themselves acquainted with the real condition of its inhabitants. But they were agents of a sort which nothing less than devotion to an individual, rather than to a cause, ever brings into play. And it is very certain that long before he withdrew from the field Chalmers himself had begun to doubt whether, in the face of a constantly growing population, the struggle could be permanently sustained. At all events, the fact is indisputable, that his departure was followed by so strong a tendency to collapse, that after a few years of sickly existence the child of his proudest affections died.

Meanwhile, the success which attended his early endeavours inspired him with an earnest desire to bring over the legislature and the people, in both sections of the United Kingdom, to his opinions. He therefore entered into correspondence with all the Poor Law Reformers of the day. He made a

tour of England for the express purpose of visiting its workhouses, and examining on the spot the plan by which individual parishes managed their poor. Wherever he came he was a welcome guest, whether in the castle or the parsonage. In London his reception was, if possible, more cordial than in 1817, and he added many estimable names to the list of his friends. But the result was not so decisive as he expected. Even Malthus, though he heartily agreed in condemning the lavish distribution of relief, and the whole theory on which it rested, could not be brought to believe that the St. John's system would be found sufficient for the general requirements of Britain.

The reader will perceive that for some time back our sketch has been rather of the public than of the private life of Chalmers. We have taken no notice, for example, of the interesting communications which he kept up with more than one religious patient, particularly with a Mr. Thomas Smith, a young man who sought and found in him a guide to peace and a lively faith before he died. Neither have we paused upon the epistolary intercourse between him and Wilberforce, Clarkson, and other philanthropists. Besides his astronomical sermons, he had already published two series of Parochial

Discourses, of which the circulation was most extraordinary. He was in the midst of his papers on "The Christian and Civic Economy of Large Towns" when George IV. visited Edinburgh in 1822, and he on that occasion was received in a distinguished manner at the King's levee. He had watched beside his father's dying bed, and laid the head of the old man reverently in the grave; and his journal shows that there was present to him at all times, and under every change of circumstance, a deep sense of God's love and of his own responsibility and waywardness. At last a prospect of comparative repose was presented to him. The parish of St. John's grew too large; he was pressed by the heritors to accept an assistant, and made choice of the afterwards celebrated Edward Irving. But all would not do. An additional church became absolutely necessary, and he found it impossible to effect that purpose except as a mercantile speculation. It was very painful to him to issue a prospectus wherein the building of the church was proposed to be undertaken by shareholders of 100*l.* apiece; and still more bitter was his disappointment when, after the edifice arose, neither argument nor entreaty could prevail upon the authorities to allow to it the same pri-

vileges which had been conceded to the new parish of St. John's. It became, in fact, a chapel of ease with a minister standing towards the incumbent of St. John's in the same relation in which Chalmers formerly stood towards the Town Hospital. His whole theory of pauper management was thus struck at, and the tie that bound him to Glasgow snapped asunder.

In February, 1817, Chalmers had refused the invitation of the magistracy of Stirling to remove thither. In January, 1822, he had declined, in like manner, the offer of a Church in Edinburgh; but when, in November of the same year, a proposal was made to him to accept the chair of moral philosophy in the University of St. Andrew's, a different feeling was stirred. He knew that rest from parochial toil was become necessary. He met Principal Nicoll in Edinburgh, and finding that the best spirit towards him prevailed within the walls of the college, he consented to be put in nomination. On the 18th of January, 1823, he was unanimously elected, and at once, and without consultation with any one, accepted the appointment.

The removal of Chalmers to St. Andrew's gave a complete change to the colour of his existence. He seemed, during his last year at Glasgow, to be

filling up by redoubled exertion the measure of his usefulness as a minister; and the solemn manner in which he bade farewell to his deacons, his Sunday school teachers, his Kirk Session, and the members of his congregation generally, will not be forgotten so long as any member of the latter body survives. We find him, henceforth, besides ably conducting the business of his class, laying himself out to take a part in church politics, without however relaxing in his endeavours to recommend to general adoption his own theory of pauper management. But his labour was now with the head only; and, being voluntary, it was incessant. He soon became a prodigious favourite with his pupils, whom he treated at all times with the most generous confidence. He did not get on quite so well in the Senatus Academicus.

The year 1824 found the Rev. Doctor sitting in the General Assembly, as Elder for the borough of Anstruther. He had long ere this thrown the weight of his influence out of doors into the scale of the evangelical party. On the present occasion he spoke and voted to sustain a decision of the presbytery of Glasgow against the admission of Principal Macfarlane to the High Church in that city—which living had usually been held by his

predecessors in the academical dignity. The distinguished presentee triumphed by a large majority of votes; but the general course of the debate had no tendency to impress the defeated section of the house with any overwhelming sense of their weakness. They determined to persevere in a general attack upon pluralities as a principle, and accordingly, in the session of 1825, the question was resumed with vigour, and lost by a majority of twenty-six only. This was somewhat ominous of greater things to come. Yet, as far as our present purpose is concerned, perhaps the most striking incident in the debate was a little skirmish between Chalmers and one of the speakers on the opposite side. The latter — Dr. Hanna does not give his name — closed his address by quoting from an anonymous pamphlet a statement to the effect, that "after the satisfactory discharge of his parish duties a minister may enjoy five days in the week of uninterrupted leisure, for the prosecution of any science in which his taste may dispose him to engage." All eyes were instantly turned upon Chalmers. But the doctor was nothing abashed. Having risen to speak to some other part of the question, he embraced the opportunity manfully to declare that they were his words which the adver-

sary was quoting. "Verily," continued he, "I believed that my unfortunate pamphlet had long ere now descended into the tomb of merited oblivion. But since that gentleman has brought it forward in the face of this house, I can assure him that I feel grateful." He then referred to the early blasphemies and contrite end of Lord Rochester, and acknowledging that his was a position analogous, in some measure, to that of the penitent wit, he concluded in these words:—

"I now confess myself to have been guilty of a heinous crime, and stand a repentant culprit before the bar of this venerable house. I was at that time more devoted to mathematics than to the literature of my profession; and feeling grieved and indignant at what I conceived an undue reflection on the abilities and education of our clergy, I came forward with that pamphlet to rescue them from what I deemed an unmerited reproach, by maintaining that a devoted and exclusive attention to the study of mathematics was not dissonant to the proper habits of a clergyman. Alas, sir, so I thought in my ignorance and pride. I have now no reserve in saying that the sentiment was wrong, and that in the utterance of it I penned what was most outrageously wrong. Strangely blinded that I was! What sir, is the object of mathematical science? Magnitude, and the proportions of magnitude! But then, sir, I had forgotten *two magnitudes.* I thought not of the littleness of time — I recklessly thought not of the greatness of eternity."

The line which Chalmers henceforth took up was that of a reformer of abuses in the church and

in the university system of Scotland. He urged the General Assembly to pass a law whereby better attendance at the Divinity Hall should be required of candidates for the ministry. He combated pluralities, and after long delay carried his point. But his great aim was to multiply churches and ministers, and to render each independent of all the rest, as well in civil as in ecclesiastical affairs. His success in collecting subscriptions was very great. So early as 1827 funds were provided for building twenty new churches in Glasgow alone. But neither would the heritors recommend nor the Civil Courts allow the assignment to each of a separate district and jurisdiction, so that the multiplication was of chapels of ease only, of which the incumbents derived their incomes entirely from pew-rents, and were not, as respected membership in Church Courts, admitted to the status of parish ministers. The consequences were unfortunate.

By the old law of Scotland the right of presentation to chapels of ease was secured to the patrons of parishes within which they might be built. Once, and once only, this law had been set aside, when Government agreed to build and endow chapels in the Highlands, on condition that the Crown should have the right of presenting to

them. But on the present occasion it was judged inexpedient to expend any portion of the public money in church-building, and the Crown could have no pretence whatever for interfering with the rights of parochial patrons. The party with which Chalmers acted took advantage of this short-sighted policy, and abused it. They raised a cry that it would be impossible to collect funds, unless some voice in the choice of ministers were given to the parties subscribing; and they succeeded in carrying an Act of Assembly, whereby the patronage of chapels of ease was vested in a majority of pew-renters. No arrangement could have been more specious in appearance, or more pregnant with mischief. It introduced every possible element of discord into the Church; for between two functionaries placed in the same district, under circumstances so different, and with powers so unequal, no sympathy could arise. The presentee, strong in his position as member of a Church Court, could hardly fail of seeing in the elected of the people an inferior and a rival. The elected of the people was prone to pay back the pride, real or imagined, of the presentee, with interest. The one affected to despise, the other courted, the applause of the people. The one became a stickler for Church

laws as they were — and especially for the established doctrine as to the rights of patrons;—the other hated both, and did his best to bring them into general discredit.

Whatever might be the case in other quarters, by Chalmers neither the evils of which we are now speaking, nor the obvious results to which they opened a way, appear to have been observed. He saw nothing in the new law, except a means of multiplying places of worship throughout the land, and accepted cheerfully the laborious office of Convener to the Committee of Church Accommodation which the Assembly proceeded to appoint. But he had other matters to trouble him.

Among many grounds of difference between his colleagues in St. Andrew's and himself, two deserve some notice. The first affected the attendance of students at St. Leonard's — the old Church of the University; the second turned upon a practice of no older date than 1784, under which certain funds, originally applied to building purposes, were divided once a year by the professors among themselves. Chalmers desired, in the former case, to get rid of an ancient statute, and to leave the young men free to worship wherever they chose. In the other he entertained such serious doubts of the propriety of

late arrangements, that he declined accepting his dividend when audit-day came round. There was much heart-burning on both subjects, as may be supposed. But perhaps what he most especially rendered himself distasteful by was the zeal with which, after a brief sojourn, he threw himself into the work of creating a deeper religious feeling in the place. He opened his parlour every Sunday evening to the students of the Moral Philosophy Class, to whom he read and explained the Scriptures. He put himself at the head of a Missionary Society, into which a large number of the students from all classes entered. Great alarm was expressed lest a spirit of fanaticism should be evoked, which might work more of evil than of good to the Established Church; and the Magnates of the University refused so much as to grant the use of the College Hall for the Society's meetings. It is but fair to add, that though dissatisfied to the last with the line which he had taken in regard to Church attendance and the Candlemas dividend, many of his brother professors fell in by degrees with his views on the subject of Christian instruction to the poor of St. Andrew's and the University Missionary Society. Some even worked with him.

Meanwhile the papers on the Christian and Civic

Economy of large towns were continued. A third volume appeared in 1826; and in the spring of the following year he received a pressing offer of the Chair of Moral Philosophy in the new University of Gower-street. We should have been better pleased, for his own sake, had Chalmers's reply contained a somewhat more decided refusal than it does. It is not agreeable to find one so earnest in his personal conviction that there can be no sound foundation for a moral life except in the faith of Christianity, coquetting, so to speak, with a body which openly, and without disguise, professed to act upon a principle diametrically the reverse. But this was Chalmers's weakness. He lacked the moral courage which enables men to speak the truth plainly and without disguise in all situations, and so he left the London University in doubt whether he regarded the omission of a theological course from their scheme as a defect or an excellency. But if he did not sternly reject, he, at all events, evaded the offer, and the project fell to the ground.

It was a peculiarity of Chalmers that, let his occupations be what they might, he always managed to have time enough for travel. In 1826 he revisited London, where his former assistant, Mr. Irving, was rising into fame — and, among other

novelties, made the acquaintance of Coleridge. The conversation of that wonderful man seems to have had no charms for him; and of Irving he now took the just dimensions. In 1827 he made a trip to Ireland, and was greeted on his return with the unsolicited offer of the valuable Crown living of St. Cuthbert's, Edinburgh. But, though he declined a parochial charge, he could not bring himself to refuse the Professorship of Divinity, to which the Town-council of Edinburgh unanimously elected him. Certainly, one of the first notices which we find in his journal, subsequent to his nomination to that office, does not speak in very decisive language of his own fitness to discharge the weighty duties connected with it. "November 9. — Have begun to read a little of Greek, Latin, and Hebrew each day." A Professor of Divinity who begins with getting up daily a lesson in Greek, Latin, and Hebrew, must find himself sorely beset when in the course of his lectures some difficulty, not to be solved without critical skill, happens to arise. But Chalmers trusted, perhaps, as much to the want of scholarship in his auditors as to his own genius; and we never heard that his method of conducting the important class over which he was

called thus suddenly to preside failed to give satisfaction.

By this time the political current had set in at head-quarters in the drift which it still continues to follow. In 1828 the Test and Corporation Acts were repealed, and in 1829 the Roman Catholic Emancipation Bill passed into law. Chalmers was favourable to both arrangements, and resisted, in the General Assembly, the motion to petition against them. But to the next move in the same course — the Reform Bill of 1830 — he offered all the opposition in his power. Meanwhile, however, between the triumph of the Duke and the breaking up of his administration, Chalmers was called to London, in order that he might be examined before the Committee on the Poor Laws, of which Mr. Spring Rice, now Lord Monteagle, was chairman. As usual, he mixed in the very best society — the great in intellect as well as in station vying with each other to show him kindness. It was on this occasion that George IV., on the recommendation of Sir Robert Peel, was pleased to mark his sense of the merits and services of the great Presbyterian divine, by nominating him to be one of his Majesty's chaplains in ordinary for Scotland.

We find Chalmers appointed in 1832 to the

honourable office of Moderator to the General Assembly. By this time the Reform Bill had become the law of the land, and a large party in Scotland, rendered giddy by that success, began eagerly to press for more. And as the Scotch either are or profess to be as much moved at all times by religious as by political considerations, first the law of patronage and then the connexion between Church and State became frequent objects of attack. By and by, the assailants, cheered by all the signs of the times, grew more bold; and a society for bringing about the dissolution of all religious establishments was formed. It had no more decided enemy than the Moderator. He well knew, and had often taught, that, however judicious it may be to throw individuals on their own voluntary exertions for the supply of wants of which the pressure is direct, it is both injudicious and morally wrong to leave the religious training of a nation to private care. For in exact proportion to the extremity of their need, men neglect religious instruction, so that, in every state where the system of voluntaryism prevails, it is by the few who stand comparatively in little need of pastoral superintendence, not by the corrupt many, that the ministers of religion are supported. Chalmers was, therefore, a strenuous advocate for

the maintenance, wherever it still existed, of an Established Church, and for the setting up of one wherever it was wanting. But, either because he had already gone too far with those who were helping him in his great church-building schemes, or that the constitution of his mind was so illogical as to be unable to follow premises to their obvious conclusion, he hesitated to resist the movement which began thus early and undisguisedly to be made towards the overthrow of the rights of patronage in his own Church. We think a letter of February 1833 shows that he was not without some misgivings. It was in answer to certain questions put by Mr. Grant, now Lord Glenelg:—

"I should deprecate any specific legislation on the subject of patronage — and am disposed to regret that the Lord Advocate did not give his consent to a special committee for taking it into consideration. This is the only practical measure which I would venture to suggest; and I do think that by this means the Legislature may attain to a solid and comprehensive view of the question in all its bearings — which would be much facilitated by the testimony of many of our clergymen, who, I know, are bestowing their anxious thoughts upon the subject. However patronage is to be modified, there is one principle which I think the Church ought to abide by, and that is its own ultimate power of deciding (even after a presentation is laid upon the table) whether, viewing all the circumstances of the case, it is for the Christian good of the population of that parish that the presentation should be sustained. The concur-

rence of the Ecclesiastical Court has been too much lost sight of for half a century as an indispensable element for the validity of every induction."

The principle here laid down is perfectly sound and just. Before conferring the sacred character, the functionary, or Court, which alone has authority to do so, ought to be fully satisfied of the eligibility of the candidate in all that relates to moral worth, soundness of faith, and competent scholarship. But is it quite easy, when dealing with a society constituted like the Church of Scotland, to say wherein this sacredness of character consists, or to determine exactly to what court or functionary the right of conferring it belongs? Neither in theory nor in practice is the institution of a priesthood recognized in the Kirk. She has her ministers, and all men style them Reverends; indeed a few, such as the Deans of the Chapel Royal and the Principals of Universities, are called Very Reverends — and the Moderator of the General Assembly is, we believe, addressed as Right Reverend. But still we must respectfully ask what is it that confers upon a layman his status as a minister of the Established Church? Certainly not the laying on of the hands of the Presbytery *per se* — for the Presbytery has no power to lay on hands except upon conditions;

but the admission of the individual to a benefice, with cure of souls attached, which begins with presentation, is carried on by trials, and consummated, and nothing more, by what, in the language of the Kirk, is called ordination. On the other hand, the Church of England, the old Episcopal Church in Scotland, the Episcopal Churches of the United States, of India, and of the British colonies, all recognize the existence of a priesthood, which stands quite apart, in itself, from either the possession of a benefice or a cure of souls. The sacred character belonging to it is conferred only by the laying on of the bishop's hands; and, except by sentence of a church court, can never be erased. In practice our English bishops, before they ordain, require their candidates to exhibit what is called a title; and the reason is, that a bishop ordaining without a title is bound to maintain his poor deacons or priests till they shall be otherwise provided for. But the title has nothing whatever to do with the conferring of holy orders, which in the colonial churches are conferred every day, as they may be conferred at any moment in our own church, on persons who neither have nor ever expect to obtain any legal cure or benefice whatever.

Again, though it be perfectly true that with us

the Bishop is entitled, and by the Canons required, not to admit to a benefice within his diocese any priest of the soundness of whose doctrine or the purity of whose life there is cause to doubt, it is not pretended either that the granting of letters of induction or the withholding such letters affects in any way the spiritual character of the presentee. The presentee was an ordained minister when he came before his diocesan with the deed of presentation in his hand. He continues to be an ordained minister, whether the diocesan agree to complete the deed by granting letters of induction, or refuse them. But the Bishop, if he refuse, must be prepared to assign his reasons, and to have their validity tested before a higher tribunal; for the right to present to a benefice is a civil right, of which the law is justly jealous: it must not be barred except upon grounds which shall bear the closest investigation. The particular court to which in England this right of supervision is entrusted, may or may not be appropriate in its constitution. That is a question with which at present we have nothing to do. But that some such court is necessary, no thinking man can doubt, any more than he will be persuaded that it interferes, or can interfere, with the *spiritual authority* of the Bishop in the proper

acceptation of that term. In Scotland the case is quite otherwise. There presentation is as much an ingredient in the composition of the sacred character as ordination. The Presbytery cannot ordain without it. If it refuse to ordain, having no reasonable ground of refusal, it interferes at once with an important civil right, and throws back the rejected presentee on his status as a layman.

But the views of the party which was now carrying Chalmers along with it went far beyond the mere negation to the clergy of a priestly character. At the best the minister of a Scottish parish is but the moral and religious teacher of his people. His Church can see no mystery in her sacraments, and recognizes no divine authority in any particular class of men to dispense them. With strange inconsistency she declaims about sacred things and the keys; yet holds up to ridicule the idea of an "Apostolical Succession." The business of her *office-bearers* is to preach, and one of the main purposes for which Presbyteries, Synods, and the General Assembly exist, is to take care that both the preaching and the lives of these gentlemen shall edify the congregations committed to their charge. Hence at all stages in her existence the Church of Scotland has invited her lay members

to object, if they see reason, to presentees before they shall be ordained to particular parishes—and we believe that there is not on record an instance of an obnoxious presentee having been forced by the civil power upon a parish after his case had been fairly tried before the Presbytery and judgment given against him. But the demand of the party—now identified with the word *Veto*—was, not that the parishioners should have the right of objecting to a presentee, assigning the reasons, and leaving the Presbytery to decide upon them; but that the bare refusal of a majority to accept an individual as their pastor should constrain the Presbytery, no questions being asked, to reject him. This sufficiently provided for the work of obstruction. What was to follow? Were the people, after rejecting the patron's candidate, to name one of their own—and was the Presbytery bound to accept *him* as they had rejected his predecessor? This would throw all power, spiritual as well as secular, into the hands of the laity; for ordination granted on compulsion is the work not of the party ordaining, but of the party compelling to ordain. Thus the minister would avowedly, as well as virtually, take rank with any other lecturer chosen by a voluntary association to

instruct them. Or was the ancient law of lapse to hold good, and, the patron's nominee being kept at bay beyond the legal time, was the right of presentation to devolve upon the Presbytery or the General Assembly? Here we have as complete a revolution effected in the management of the secular affairs of a church as ever was sought and carried through by the Bishop of Rome in the most rampant days of popery. It appears to us that from this dilemma, as we have just stated it there is no escape; and that Chalmers was not wholly blind to the nature of the difficulty in which his more wily allies by little and little involved him, there is ample proof even in the narrative of Dr. Hanna.

We are far from disputing that there had often appeared a most blameworthy absence, among the patrons of Scottish benefices, of due regard to the spiritual wants of the people in the nomination of ministers. Both there and here the abuse of church patronage was great—and the Evangelical party in the Kirk would have deserved the gratitude of the nation had they striven to correct an evil which cannot long hold out against the weight of public opinion honestly applied. Indeed this

was manifestly the desire of Chalmers in 1833, when, a few days before the Assembly met, he called a number of influential clergymen and elders together for deliberation. "His suggestion," says Dr. Hanna, "was, that without resorting to its legislative, the Church should employ its judicial authority in effecting purer appointments. It had been by a series of individual decisions that *the call* had been reduced to a nullity: by a series of opposite decisions let it be restored to significance." In other words:—the people, discouraged by the contemptuous treatment awarded to their objections, have ceased to inquire into the characters or to attend the trial discourses of the gentlemen nominated by patrons to minister among them. Let the Church re-assert her legitimate authority, calling upon her lay members to offer objections—wherever there shall seem to be ground—and by giving to such objections all the weight which they may deserve; but as to attempting, by any legislative proceedings in the Assembly, to over-ride the Acts of Parliament which secure to patrons their rights, the Church will act at once unwisely and unlawfully if she adventure on anything of the sort.—It would have been well for the Kirk, as well as for the lasting reputation of one of her

brightest ornaments, had Chalmers possessed moral courage enough to adhere to this decision.

Whether he put forth the whole of his powers in pressing the adoption of these views upon his friends we cannot tell. It is certain that they were not adopted, and that he himself—strange to say—was prevailed upon to take the lead in proposing to this very Assembly of 1833, a resolution materially opposed to them. Still Dr. Chalmers's resolution (which Dr. Hanna, for reasons best known to himself, has not reprinted even in an appendix) breathed a spirit very different from that which pervades the famous Veto Act of 1834. It appears also that it was not concocted without the advice and assistance of Mr. (afterwards Lord) Cockburn—then Solicitor-General for Scotland under Lord Melbourne's Government—and that the Government was willing to purchase a little passing popularity, even if the price should be an entanglement of the Church of Scotland in very serious difficulties. What Dr. Hanna has omitted we shall take the liberty to supply. Here is Chalmers's resolution:—

"That the General Assembly, having maturely weighed and considered the overtures now before them, do find and declare that it is, and has ever been since the Reformation, a fixed

principle in the law of the Church, that no minister shall be intruded into any pastoral charge contrary to the will of the congregation; and considering that *doubts and misapprehensions* have existed on this important subject, whereby the just and salutary operation of the said principle has been impeded, and in many cases defeated, the General Assembly further declare it to be *their opinion* that the dissent of a majority of the male heads of families resident within the parish, being members of the congregation and *in communion with the Church at least two years previous to the day of moderation* — whether such dissent shall be expressed with or without the assignment of reasons — ought to be of conclusive effect in setting aside the presentee (under the patron's nomination) *save and except where it is clearly established by the patron, presentee, or any of the minority,* that the said dissent is founded in corrupt and malicious combination, or *not truly founded in any objection personal to the presentee in regard to his ministerial gifts or qualifications, either in general or with reference to that particular parish;* and in order that this declaration may be carried into full effect, that a committee shall be appointed to prepare the best measures for carrying it into effect accordingly, and to report to the next General Assembly."

By this proposition the Assembly was requested to express an opinion upon a particular case, and to devise means of meeting a particular difficulty; but it neither placed the patron at the mercy of a mob, nor denied the right of the Presbytery to determine on the qualification of a candidate for the ministry. Now this is a very different thing from decreeing and determining that such and such a course shall hereafter be followed, and that any

deviation from it on the part of the Presbyteries shall be visited with Church censures. Compare with it "The Overture and Interim Act on Calls," proposed and carried by Lord Moncrieff next year in an Assembly of which Chalmers was not a member, and judge of the candour of Dr. Hanna, who would fain persuade his readers to believe that the one was a mere repetition of the other. The words of 1834 are:—

"The General Assembly declare, That it is a fundamental law of the Church that no pastor shall be intruded into any congregation contrary to the will of the people; and in order that the principle may be carried into full effect, the General Assembly, with the consent of a majority of the Presbyteries of this church, do declare, enact, and ordain that it shall be an instruction to Presbyteries that if, at the moderating in of a call to a vacant pastoral charge, the major part of the male heads of families, members of the vacant congregation, and in full communion with the Church, shall disapprove of the person in whose favour the call is proposed to be moderated in, such disapproval shall be deemed sufficient ground for the Presbytery rejecting such person, and that he shall be rejected accordingly, and due notice thereof forthwith given to all concerned; but that if the major part of the said heads of families shall not disapprove of such person to be their pastor, the Presbytery shall proceed with the settlement according to the rules of the Church;—and further declare that no person shall be held to be entitled to disapprove, as aforesaid, who shall refuse, if required, solemnly to declare, in presence of the Presbytery, that he is actuated by no factious or malicious motive, but solely by a conscientious regard to the spiritual interests of himself or the congregation."

The proceedings of the General Assembly, though extremely interesting to the members of that body, were not in 1834 watched with very curious eyes even in Edinburgh, much less in London. The Veto Act passed, and the order of the universe received no shock. Chalmers, who, as we have just said, took no active part in pressing it forward, seems, like the majority of persons out of doors, to have been blind to its inevitable consequences. He had been requested by the Bishop of London to contribute to the Bridgewater Treatises, and produced a work "On the Adaptation of External Nature to the Moral and Intellectual Constitution of Man." He next made a tour of the cathedrals of England, and by and by, in his still ardent zeal to decry the voluntary principle in Church matters, lectured to crowded audiences in the Hanover-square Rooms. Meanwhile literary distinctions of all sorts poured in upon him. The French Institute elected him into their body; Oxford conferred on him the honorary degree of Doctor of Laws. Much flattered with the former compliment, he made an interesting excursion into France—but nothing diverted him from his great object. He was determined to fill Scotland with churches and chapels in communion, at least, with

the Establishment; and the erection of upwards of two hundred and twenty followed upon the incessant exertions which he made. But clouds were gathering in the horizon, and almost imperceptibly he suffered himself to be encircled by them.

A few months after the passing of the Veto Act the Earl of Kinnoul presented to the parish of Auchterarder, in Perthshire, Mr. Young, a licentiate, and therefore fully eligible in law to go on to ordination. It does not appear that in the first instance any active opposition was offered. Mr. Young preached on two successive Sundays; the attendance, said to have been small, was not hostile, for though only two parishioners when invited came forward to sign the call, not one, *suo motu*, protested. The Presbytery, dissatisfied with this state of things, invited opposition, and soon got it; out of three hundred heads of families two hundred and seventy-eight objected, and the Presbytery declined to sustain the call. The case was appealed, as matter of course, to the Synod of Perth and Stirling, and afterwards to the General Assembly, which, in 1835, repelled the objections taken to the decision of the primary Court, and instructed the Presbytery to "proceed in the mat-

ter in the terms of the Interim Act of the last Assembly." Our readers in general must well recollect the startling incidents which followed. The Court of Session was applied to by patron and presentee for redress; it decided against the Presbytery, and the Presbytery falling back upon the General Assembly for support, that body directed its law officer to carry the question into the House of Lords. The decision of the Lords fully maintained that of the Court of Session: and Lord Chancellor Brougham, in delivering his opinion, very distinctly stated that the Presbytery which should persist in disobeying the decree of the Court of Session would expose itself to "the consequences, civil, and other, of disobeying the positive and clear order of a statute."

According to Dr. Hanna, Chalmers had never cordially approved of the Veto Act; he even meditated a motion for its repeal, desiring to substitute a general declaration against the principle of intrusion, with a resolution to deal with particular cases as they should occur; but the language of the Chancellor and the other *learned* Peers impressed him with such a settled dread of worse things, that he made up his mind to adopt the law as his own, and to co-operate for the maintenance

of it with its original promoters. Lord Melbourne was written to, and, at his suggestion, it was resolved to send a deputation from the Committee of General Assembly to London. But Dr. Hanna, who takes care to inform us of this, goes considerably beyond the line of historical fact when he adds that "it was with the express concurrence and sanction of Government that the Veto Law had been originally passed." The Lord Advocate (Jeffrey), in a letter cited (May, 1833), goes no farther than to say that, in the opinion of the writer — who carefully guards himself from being understood as speaking officially — "the Government must be much gratified by the Assembly's adopting such a resolution" as Chalmers had brought forward that year, and failed to carry. However, we cannot say that either by the Whigs, or the Conservatives who by and by ejected them, were Chalmers and his brother delegates very handsomely used. The Auchterarder case was not slow in provoking others of a like description. In 1835 the Crown presented a Mr. Clarke to the living of Lethendy; the people vetoed the presentation, and the Presbytery rejected the presentee; and by and by, in 1837, still more complicated difficulties arose. A Mr. Edwards having

been presented to Marnoch, the Presbytery of Strathbogie, on receiving a well-signed deed of veto, refused to put him on his trials. The trustees of the patron (a minor) presented another man — whereupon Mr. Edwards applied for and obtained an injunction from the Court of Session against the induction of this individual. The consequences brought matters to a crisis. Not willing to incur the risks of disobedience to the civil power, and perhaps disliking both the principle and operation of the Veto Act, a majority of the Presbytery of Strathbogie made haste to amend the decision. Mr. Edwards was put upon his trials, accepted, and regularly inducted as minister of Marnoch. Such occurrences could not fail of exciting the deepest interest. The Church had set herself in direct opposition to the State. She had passed a law which affected private rights in civil life to a large extent, and she refused, on religious grounds, to amend it. To detail the appeals and remonstrances that followed, the decisions of Courts, the reclamations of Presbyteries, and the efforts made by the majority in the Assembly to get a bill brought into Parliament for the confirmation of rights which that majority had resolved, at all hazards, to maintain, would require far more space

than we have at our disposal. For the Assembly, emboldened by the apparent apathy with which its attempt to set the ecclesiastical above the civil power was at first received, had of its own accord conferred upon the ministers of chapels of ease all the privileges which the constitution gives only to parish ministers; and the voices of those new intrants, who perfectly well understood their position, were loud against concession in any shape. That Chalmers grieved over the confusion which he had contributed to bring on, all his letters, as well as his journal, show. Unfortunately he had accepted the ostensible lead in a party of which many were more adroit as well as far-seeing than himself. He was but an instrument, in these controversies, of Dr. Candlish, Dr. Gordon, and one or two more, who, not perhaps anticipating that their projects would be so resolutely opposed, had made up their minds, at all hazards, to render the Church dominant or to destroy it; and led him on, by little and little, to a point whence there was no honourable retreat.

The majority of the Presbytery of Strathbogie, by whom Mr. Edwards had been inducted, fell at once under the censure of the Committee of Assembly. They were required to re-consider their

decision: they refused to do so, and sentence of suspension issued against them. They took no notice of such suspension, farther than to apply to the Court of Session for a decree prohibiting the minority from acting as a presbytery without them, and to prevent ministers sent down by the Assembly from officiating within their bounds. That the granting of the latter of these prohibitions was a flagrant outrage on the principle of ecclesiastical liberty cannot be denied.

The Assembly having failed in finding support from the Whigs, turned, through its committee, to the Tories, and a great deal of correspondence took place between Dr. Chalmers, on one part, and Sir George Clerk and Lord Aberdeen on the other. It is evident, even from the few letters which Dr. Hanna has judged it expedient to publish, that the wish at least to compose the differences which had unhappily arisen was very strong on all sides. Chalmers did not scruple to express his readiness to give up the Veto Act, in letter; and Lord Aberdeen went as far towards supporting it in spirit as a statesman could well do. Indeed his lordship, in his anxiety for peace, went on one occasion further than seems to have been quite prudent, considering the purposes which he had in

view. Writing to Dr. Chalmers on the 1st of February, 1840, he says: —

"In order to prevent farther misapprehension, I will explain by an imaginary case in what manner I understand the proposal, and the mode of its operation. It is agreed that in all cases the people objecting to a presentee shall assign the reasons of their dissent, be they what they may. Now, let us suppose that any number of persons should object to a presentee because *he had red hair.* This would, no doubt, be a very bad reason; but if they persevered in their hatred of red hair, and the presbytery found it consistent with their sense of duty, and the dictates of their own consciences, they might give effect to the presentation by rejecting the presentee. But then the reason of dissent on the part of the people, as well as the rejection by the presbytery, would be recorded; and if the superior Church Courts should confirm the decision, the matter would then terminate. It is to this publicity, and to the common sense and justice of mankind, that I look for a security against arbitrary and capricious proceedings in any quarter."

Had the imaginary case of the *red hair* been omitted, the real purport of this letter would have been obvious to all the world. It advocated the necessity of assigning reasons in all cases of veto, and imposed on the presbytery the responsibility of deciding as to their weight. But the selection of an objection so very little likely to occur, and the conceding to the presbytery of a right to accept it as valid, was very unfortunate for the noble earl's argument. The non-intrusion party under-

stood the matter in the sense which they preferred, and complained, with some show of reason — we do not say with more than some show — of having been deceived.

But we must hurry forward to the closing chapters in this memorable history, which, if we could only forget that there was, in point of fact, no cause worthy of the effect produced, would be quite sublime. The Government was changed in 1841 — but things went on from bad to worse, and in May, 1842, the General Assembly met under a settled impression that a crisis was near. From the presbytery of Strathbogie a double return had been made; and there presented themselves, in order to be entered on the roll, two sets of members, — one elected by the minority which had paid obedience to the decree of the Supreme Court, another chosen by the recusant majority — themselves lying at the moment under Church censures. Without the slightest hesitation Mr. Dunlop — an active partisan of the legal order — moved that the return of these latter should be disregarded; and in opposition to Dr. Cook, who affirmed that the Assembly ought not to treat the returning parties as deposed members, Dr. Chalmers said: —

"Moderator, this is the first time in my life that I ever

heard it asserted that the dissent of a minority superseded the sentence of a court passed by an overwhelming majority. The proposition is in substance, that those deposed by the General Assembly of 1841 shall nevertheless be allowed to sit as members in the General Assembly of 1842. Why, sir, the proposition is so very monstrous, so fully comes in conflict — so palpably and immediately comes in conflict — with a first principle, that I cannot hold it to be a case for argument at all. But that such a proposition should be made, that such a proposition should even be thought of, is a very instructive fact."

Of course, the fact which the eloquent speaker alluded to was the state of anarchy into which the Church had fallen, and the determination manifested by her enemies to rob her of what he and his adherents considered to be the last relics of independent authority. And so entirely was the spirit of the meeting enthralled by his appeal, that the young barrister's motion was carried by an overwhelming majority. But the struggle did not end here. No sooner was the Assembly met for the transaction of business than the representatives from the recognized presbytery of Strathbogie informed the house that interdicts from the Court of Session had been served upon them, prohibiting them from taking their seats as members. The announcement was received in silence. The Assembly directed that the names of the interdicted members should be inserted in the roll, thus

identifying the acts of these gentlemen with those of the Church; and forthwith entered upon proceedings against such ministers as had exhibited a too ready acquiescence in the decrees of the civil courts. Besides other examples made, all those ministers who held communion with the recusants of Strathbogie were suspended from the exercise of their judicial functions as members of Church Courts till the meeting of the March commission of the following year.

Had the Assembly stopped short at this point—had there been discretion enough in the majority to adhere to the terms of the original dispute—it is by no means impossible that even yet grounds of honourable compromise might have been found. We are ready to repeat that neither from Whigs nor Tories had the Church of Scotland received such treatment as might have been expected. Lord Melbourne's supercilious levity was most offensive; Lord Aberdeen's courteous gravity was no sufficient offset for what was regarded as cold over-caution; while Sir Robert Peel and Sir James Graham either were, or appeared to be, so overshadowed by the terror of priestly domination, that all attempts to bring the Church's case in its simplicity before them failed. Still nothing that had

occurred in such quarters will justify the proceeding into which the Assembly now hurried. A resolution was moved to the effect that patronage lay at the root of all the evils under which the Church laboured, and that therefore patronage ought to be abolished. Then, even more clearly than on previous occasions, the Church and the State came into direct and vehement collision. The Act of 1712 gave back to patrons the rights of which, during a season of political and religious confusion, they had been deprived — and for a hundred and thirty years the Church itself had acquiesced in the arrangement. Now the Church, speaking by the voice of her representatives, pronounced the law to be iniquitous: 216 members supporting the resolution, while 147, and no more, opposed it. And, finally, as if to throw up an impassable barrier between herself and the civil power, the Church adopted as her own a document proposed by Dr. Chalmers; and denounced, in her "Claim of Rights," as tyrannical and impious, everything that had been done throughout the last century, whether by the Court of Session or the Legislature, to regulate or control the right of patronage and the manner of institution to benefices.

The transmission of this document to Sir Robert

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Peel, through the hands of the Lords Commissioners, was the last official act of the Assembly of 1842. Not one of the party which achieved the triumph anticipated that any good to the Church would result from it. But they had freed their own consciences, and returned to their respective parishes strengthened to meet any possible consequences. "The Church's principles" (says Dr. Hanna) "were thus faithfully declared; her final purpose thus solemnly announced; she committed her ways to God, and waited the evolutions of His will." Chalmers crossed over to Ireland, and spent his summer in apparent tranquillity, amid the exquisite scenery of Carlingford Bay. It was, however, in fact, a season of much toil and anxiety. His correspondence was incessant, and he threw his whole heart into a labour — in his case — of conscience, undoubtedly. Mr. Campbell of Monzie's Bill, to which the more moderate of the party had looked forward with hope, was arrested ere it came to a second reading, on a technical objection. Mr. Fox Maule urged the Prime Minister to remove this objection, by consenting, in the name of the Crown, to the introduction of the measure. But Sir Robert Peel declined to do so, and the Bill was lost. Worse things followed. Lord Kinnoul and Mr.

Young raised an action of Damages against the Presbytery of Auchterarder, as compensation for injury sustained by patron and presentee in consequence of the rejection of the latter, and obtained a decree. The finding of the Court of Session was confirmed on appeal; and the point was settled—that in the opinion of the highest civil tribunal, the obligation to "receive and admit," except on good cause shown to the contrary, still lay upon the Presbytery, and was *a civil obligation*, of which the violation was punishable under the common law of the land.

The announcement of this decision of the House of Lords was received by Dr. Chalmers and his friends gravely, but in a resolute spirit. All equally felt that their battle-field was narrowed; but while some suggested the fitness of an immediate secession, others — and Dr. Chalmers took the lead among them — still recommended delay.

"I have no idea," says the Doctor, in a letter to one of his sons-in-law, "*of instant* resignation. We must not go out in driblets, but in a compact and entire body; and one step clearly, in my view of it, remains to be done ere this great compact movement should take place. To go out now would be receiving our doom as an establishment from the civil court; or at the bidding of a mere fellow and co-ordinate with ourselves —for the House of Lords, in its judicial capacity, is nothing more. We should not quit the Establishment till we have

obtained from Parliament a deliverance, whether by an adverse proposition, or a refusal to entertain our cause."

But though thus fighting for delay, Dr. Chalmers had contemplated no other result than one. He therefore suggested that, previously to the meeting of next Assembly, a Convocation of "all the right-minded clergy" should be held; and this plan being at once adopted, a circular, signed by thirty-two influential persons, invited the whole "Evangelical Ministers of Scotland to meet at Edinburgh on the 17th of November."

The Convocation met on the day appointed, at seven o'clock in the evening, in a small chapel (Roxburgh Chapel) in an obscure part of the Old Town. Four hundred and fifty ministers were present, a larger number than in Scotland ever had met in council before, and Dr. Chalmers was called to the chair. The proceedings were solemn and decorous. Declining the assistance of law agents, and with doors closed, these four hundred and fifty ministers discussed among themselves the state and prospects of the Church, and concurring in the views of their chairman, that their business was "to fix the point beneath which it was impossible for the Church to act," came to the following Resolution: —

"That as the principle involved in these decisions —[various

decisions of the Court of Session and House of Lords]—and particularly in the recent Auchterarder judgment, is that of the supremacy of the civil courts over those of the Established Church in the exercise of their spiritual functions, so the members of the Convocation declare that no measure can in conscience be submitted to, which does not effectually protect the Church against the exercise of such jurisdiction of the civil courts in time to come."

It was felt by all who listened to the terms of this Resolution, that every one who appended his signature to the deed, pledged himself to abandon his living, and to secede from the Establishment, in the event of a perseverance by the Government in its present line of policy. To Chalmers, indeed, this issue had so long been evident, that he was already prepared with a plan for the organization of an independent Church, and for the raising of funds out of which places of worship might be erected, and a maintenance provided for their ministers. No sooner was the vote carried, than he requested and obtained permission to read the document in question. His brethren listened respectfully, as they were ready to do to anything proposed by him; but not ten, we are assured, out of the whole body, regarded it otherwise than as "the visionary anticipation of a too sanguine imagination." Yet it became, well nigh verbatim, within a very few months, the charter of a religious

society, which has already built 800 churches, maintains 800 ministers, and is adding from day to day to their number.

The signatures attached to the vote of Convocation amounted on the first day to 270. These rose by and by to 333; and Chalmers exclaimed — "Then we are more than Gideon's army — a most hopeful omen." His joy, however, was that of one who counts not upon any immediate deliverance from a difficulty, but on the courage of himself, and of a devoted band of associates, to dare all, and if need be to suffer all, for conscience' sake. It is to be regretted that there should have been suffered to mix itself up with this feeling a bitter spleen against a party in the Church of England, which was contending for a principle not unlike that for which Chalmers and his friends were willing to become martyrs — as well as a disposition, scarcely more creditable, to conciliate dissenters, whom, but a few years previously, the Doctor had gone considerably out of his way to vituperate. For the Puseyism of which he entertained so much horror rests upon precisely the same general assumption which pervades all the speeches, as well as the recorded resolutions, of the founders of the Free Kirk — namely, that in matters of faith and church

discipline the civil power has no right to interfere; with this remarkable difference, however, in the two cases, that Puseyism confines itself strictly to points of doctrine and ecclesiastical discipline, while the Free Kirk contrives so to intermingle questions of temporal benefice and spiritual teaching, that no casuists, except her own, have ever been able to disentangle them.

The resolutions of the Convocation, being embodied in a Memorial, were transmitted to her Majesty's Cabinet, and after a brief delay the answer arrived. Though bearing the signature of Sir J. Graham, it cannot be described as either a very logical or a very courteous document. It took no notice whatever of the *Memorial;* but, adverting to certain Addresses which the General Assembly had transmitted to the Crown, entered into a detailed examination of occurrences long gone by, and wound up by declaring that to yield to the Church's demands would "lead directly to despotic power." Never, surely, was a great cause argued on both sides with more unwise *finesse.* If their reasoning was subtle, however, the acts of the belligerents were straightforward enough, and one by one they hurried on the catastrophe.

Among other effects produced by the recent

attacks on patronage, the return into the bosom of the Church of a body of dissenters known as the *Associated Synod* deserves especial notice. It was a consummation highly prized by the Evangelical party, who lost no time in voting the ministers of the Synod to be members of the Presbyteries within which their respective meeting-houses stood; and took steps to attach a territorial district to each. One of these ministers, Mr. Clelland, of Stewarton, had been received as a lawful member into the Presbytery of Irvine, and the Presbytery was further engaged in allocating to him a pastoral district, when the Court of Session interfered. Against the interdict issued it was competent to the Assembly to appeal, as it had done in the Auchterarder case; but — the House of Lords being now considered as decidedly a hostile tribunal — it was resolved to go at once to the Legislature.

A petition, drawn up by the Commission of Assembly, was accordingly presented to the Commons on the 7th of March, 1843; and Mr. Fox Maule — (now Lord Panmure — ever a fervent and steady ally of Chalmers's) — moved that the House should resolve itself into a Committee, to consider the grievances of the Kirk. Mr. Campbell of Monzie, Sir George Grey, Mr. Rutherford, Mr. P. M. Stew-

art, spoke in favour of the motion. Sir James Graham, resisting it, called upon the House to put an extinguisher at once upon the expectations of the Church, "because he was satisfied that such expectations could not be realized in any country in which law, or equity, or order, or common sense prevailed." Lord John Russell — more tender in speech — coincided in all Sir James Graham's opinions; while Sir Robert Peel expressed his hope that "an attempt would not be made to establish a spiritual or ecclesiastical supremacy above the other tribunals of the country; and that, in conjunction with increased attention to the duties of religion, the laws of the country would be maintained." The debate occupied two nights, but the result was never for a moment doubtful. Mr. Maule's motion was lost by a majority of 240 votes to 76.

It is not necessary to continue our narrative further in detail. While Dr. Cumming wrote pamphlets to prove that there would be no secession — or that if it did occur the numbers of seceding ministers would be very small—while Dr. Leishman assured Lord Aberdeen that the whole affair would end in smoke—while those apparently best informed even among the citizens of Edinburgh affirmed "that not forty would go out"— little short of four

hundred brave hearts set themselves to prepare for an issue which they felt to be inevitable. Each explained to his congregation the point at which the controversy had arrived, and prayed for Divine support. But forthwith, under the guidance of Chalmers, a machinery of wider agitation was prepared. Associations were entered into, and public meetings held, collectors appointed, and, six months before the Free Church had any existence, considerable funds had been gathered in, both for the erection of places of worship and the maintenance of ministers. And then, and not till then, Chalmers and his friends of the Convocation drew breath, like men ready for the final act of all. Writing to a correspondent in America on the 19th of April, 1843, he says: —

"Our crisis is rapidly approaching. We are making every effort for the erection and sustentation of a Free Church, in the event of our disruption from the State, which will take place, we expect, in four weeks. I am glad to say that the great bulk and body of the common people, with a goodly proportion of the middle classes, are upon our side, though it bodes ill for the country that the higher classes are almost universally against us. Notwithstanding this, however, we are forming associations for weekly payments all over the country; and I am glad to say that they amount, by this day's post, to 408. We expect that by the meeting of our General Assembly the country will be half organized, and are looking for a great additional impulse from the disruption, when it actually takes place. I am hopeful

that ere the summer is ended we may number about a thousand associations, or as many as there are parishes in Scotland, so that unless there be an attempt to crush us by persecution, I have no fear of our getting on. But the Lord reigneth, and He alone knoweth the end from the beginning. Let us look to His providence and grace, without which there can be no security from without nor vital prosperity within."

The day of trial at length arrived. On the 19th of May the Assembly had been appointed to meet. From as early as four o'clock Edinburgh was astir; and, as the morning advanced, the grave countenances of all who met and conversed in the swarming streets showed that for no gala purpose had they quitted their shops and their offices. Towards noon the great gallery in Holyrood House was thrown open, and the Marquis of Bute, Lord Commissioner, received the most crowded levee which had been witnessed for years. Just as it was at the fullest, a portrait of William III., which hung opposite to the spot where the representative of Majesty stood, got loosened and fell heavily upon the floor. "There goes the Revolution settlement," exclaimed a voice from the throng; and the words were received as if some prophet had spoken. There was profound silence throughout the gallery for several moments.

At the close of the levee the Lord Commissioner

proceeded to St. Giles's Church in his state coach, drawn by six horses; a magnificent cortége followed, and cavalry escorted them. There was a sermon, according to custom, by the Moderator of the last Assembly: and the frequent allusions made to things past and things about to come fell like so many warning notes upon the ears of the audience. By and by the members of Assembly proceeded in a body to its Hall, which was crammed to suffocation, except in the space railed off for their own occupation. Dr. Welsh, the out-going Moderator — a divine of great personal authority — took the chair, and soon afterwards the Lord Commissioner entered. He was received with every mark of respect — Moderator, members, and audience all rising to greet him; after which a prayer was offered. And now expectation, which had already been wound up to the highest pitch of excitement, became positively painful, when the Moderator rose and said: —

"Fathers and brethren, according to the usual form of procedure this is the time for making up the roll. But, in consequence of certain proceedings affecting our rights and privileges — proceedings which have been sanctioned by her Majesty's government, and by the legislature of the country; and more especially in respect that there has been an infringement on the liberties of our constitution so that we could not

now constitute this court without a violation of the terms of the union between Church and State in this land, as now authoritatively declared, I must protest against our proceeding further. The reasons that have led me to come to this conclusion are fully set forth in the document which I hold in my hand, and which, with permission of the House, I will now proceed to read."

It will be enough to transcribe the close of this document:—

"We protest that in the circumstances in which we are placed it is and shall be lawful for us, and such other Commissioners chosen to the Assembly appointed to have been this day held, as may concur with us, to withdraw to a separate place of meeting, for the purpose of taking steps, along with all who adhere to us—maintaining with us the confession of Faith and standards of the Church of Scotland—for separating in an orderly way from the Establishment, and thereupon adopting such measures as may be competent to us, in humble dependence on God's grace and the aid of the Holy Spirit, for the advancement of His glory, the extension of the gospel of our Lord and Saviour, and the administration of the affairs of Christ's house according to His holy Word; and we now withdraw accordingly—humbly and solemnly acknowledging the hand of the Lord in the things which have come upon us because of our manifold sins and the sins of the Church and nation: but, at the same time, with assured conviction that we are not responsible for any consequences that may follow from this our enforced separation from an Establishment which we loved and prized, through interference with conscience, the dishonour done to Christ's crown, and the rejection of his sole and supreme authority as King in his Church."

Dr. Hanna tells the sequel in these striking sentences: —

"Having finished the reading of this Protest, Dr. Welsh laid it upon the table, turned and bowed respectfully to the Commissioner, left the chair, and proceeded along the aisle to the door of the church. Dr. Chalmers had been standing immediately on his left. He looked vacant and abstracted while the Protest was being read; but Dr. Welsh's movement awakened him from the reverie. Seizing eagerly upon his hat, he hurried after him with all the air of one impatient to be gone. Mr. Campbell of Monzie, Dr. Gordon, Dr. M'Donald, and Dr. Macfarlane *, followed him. The effect upon the audience was overwhelming. At first a cheer burst from the galleries, but it was almost instantly and spontaneously restrained. It was felt by all to be an expression of feeling unsuited to the occasion; it was checked in many cases by an emotion too deep for any other utterance than the fall of sad and silent tears. The whole audience was now standing gazing in stillness upon the scene. Man after man, row after row, moved on along the aisle, till the benches on the left, lately so crowded, showed scarce an occupant. More than four hundred ministers and a still larger number of elders had withdrawn."

Thus was consummated at once the greatest and most eventful schism that perhaps ever occurred in any national church since the foundation of Christianity in our land. Neither the compulsory defection of the non-conforming clergy from the Church of England in the sixteenth century, nor the severance of the Evangelical from the Lutheran

* The late Dr. Patrick Macfarlane held the living of Greenock — the richest, we believe, in the Church of Scotland.

party in Protestant Prussia, can for a moment be compared with it. Both of these, with all the other secessions of which ecclesiastical history makes mention, had some plea of conscience and purity of doctrine, as well as of discipline, to urge. But the disruption of the Kirk of Scotland arose out of no diversity of opinion in regard either to the creeds or to the constitution of the body so torn. The seceders took with them the Westminster Confession of Faith, the Catechisms, and the government by Kirk Sessions, Presbyteries, Synods, and a General Assembly, of the Church which they abandoned. The party abandoned retained all these in their integrity; and, as usually happens in like cases, a spirit of rancour was kindled between them immediately, which became bitter in proportion to the shadowy nature of the barrier, which, when regarded in a spiritual and not a political point of view, was thenceforth to divide them. It was a great misfortune to Scotland, this schism; and it threatens to be an enduring one.

As to Chalmers — though his biographer strives to make it appear that in the answer of a good conscience he found perfect peace — there is palpable evidence, even in the work now before us, that he was never the same man again. He felt that, in

pursuing an unattainable object, he had sacrificed much good that lay within his reach. He had become the leader in a rebellion against not the Church alone, but all the principles and opinions of his earlier life. He continued for a while to labour with his pen as diligently as before; and being nominated to the twofold office of Principal and Theological Professor in the Free Church College, he taught, during the winter months, pretty much as he used to do when occupying the Divinity Chair in the University of Edinburgh. His summers were chiefly spent in travel; mostly canvassing in behalf of Free Church funds — now and then in search of health and recreation for himself. But there is no hiding the fact that everything was done under the pressure of great mental despondency. Even his exertions to Christianize the neglected closes and alleys of the Scottish metropolis, though vigorously, and, up to a certain point, successfully made, were not made in the spirit of hopeful and joyous faith which characterized similar efforts both in Glasgow and St. Andrew's. In a word, Chalmers does not appear to have been quite at peace within himself — it seems certain that, in spite of the wonderful liberality of the body to which he belonged, he never reposed any confidence

in the voluntary principle as an efficient instrument for extending Christianity through the land.

On the 7th of May, 1847, Chalmers re-appeared in London. He had withdrawn himself of late almost entirely from Church business, but, being invited to appear as a witness before a Committee of the House of Commons which had been appointed to inquire into the refusal by certain landed proprietors of sites for Free Churches, he undertook the journey, and stood it well. He has given in his diary a rather ludicrous account of his examination by Sir James Graham, in the course of which he appears to have thrown out a good deal of gratuitous abuse of the Church of England. But we need not stop to point out inconsistencies at this period either in the words or deeds of one whose more vigorous days had exhibited so many inconsistencies. If he satisfied nobody else, he delighted his Free Church adherents. Though no longer the lion that he used to be, he was still coveted and caressed by a large circle in the metropolis. He preached in the Mary-le-bone Chapel, and his note-book contains this entry:—"The Church thin when we first entered it, but becoming full, with a good many in the passages, before I began." There is no further notice of the crowding

of the great and the scientific to listen; and he finds leisure to dine quietly in the coffee-room of the Athenæum, at the same table with Dr. Whewell. Of course a man of Chalmers's temperament could not but be conscious that the sphere of his usefulness was narrowed. But the effect seems to have been to subdue and humble, not at all to irritate or sour his spirit; he was pleased with every mark of attention shown to him, and made a record of it. He remained barely a week here, and then returned home by way of Oxford and Gloucester. On the 30th of May he wrote to his sister, Mrs. Morton, a letter which, though finished and dated, he never folded up.

"He went out," says Dr. Hanna, "after writing this note, into the garden behind the house, sauntering round which he was overheard by one of his family, in low but earnest tones, saying, 'Oh, Father! my heavenly Father!' On returning to the drawing-room he threw himself into his usual reclining posture. During the evening, as if he had kept his brightest smiles and tenderest utterances to the last and for his own, he was peculiarly bland and benignant. 'I had seen him frequently,' says Mr. Grennel, 'at Fairlie, in his most happy moods, but I never saw him happier. Christian benevolence beamed from his countenance, sparkled in his eye, and played upon his lips. Immediately after prayers he withdrew, and, bidding his family remember that they must be early to-morrow, he waved his hand saying, A general good night.'"

About eight o'clock next morning a neighbour,

who had expected to receive from him a packet of papers, sent to inquire whether they were ready. The housekeeper, who had been long in the family, knocked at his door, without, as it seemed, making herself heard. She opened it, spoke, received no answer; threw wide the window-shutters, and approached the bed. He sat in a half-recumbent position, with his head reclining upon the pillow, quite dead.

Such was the sudden but calm termination of a career as brilliant, as varied, certainly as eccentric —perhaps as useful—as has ever been run by one placed in the comparatively humble station of a Scottish Presbyterian minister. That popular enthusiam made at the time something too much of Chalmers his warmest admirers will now, we suppose, acknowledge. His style is generally turgid, often confused, unnecessarily disfigured by uncouth phrases and words coined for the nonce, and remarkable for nothing more than the perpetual repetition of some favourite idea in terms which seem intended to create in the unobservant reader a persuasion that new truths are brought before him. But there is a potency in it, notwithstanding, which carries us along—often indeed against the better pleadings of our judgment. In truth, we

consider him one of the poorest reasoners, both as a moralist and a divine, that ever strove to convey his own views of things to the minds of others; and of his political economy experience has long since shown that it is both based and built up upon a delusion. Of his gigantic powers as a pulpit orator there can, however, be no doubt; there was a fervour in his manner, a persuasiveness in his tones, a charm even in the coarse Fife accent, of which he never got rid, that arrested the attention and kept it fixed on the preacher all the time that he was speaking; and if at the close of the discourse the auditors sometimes failed of determining the exact point which it was designed to establish, they never separated without having received a strong general impulse to good. Nor was his influence less effective in private conference than in public appeals. Whatever he took up, he took up in earnest, and there is a magic in earnestness which rarely fails of going much further with such as observe it than any extent of argument—be it ever so logical.

Of the posthumous works which his son-in-law has been induced to publish, we cannot on the present occasion say much. The general impression made upon our minds by a laborious perusal

of them, is that as far as the literary reputation of the author is concerned, most of them had better have been suppressed. Except two volumes entitled Institutes of Theology—a third made up of notes on Butler's Analogy, Paley's Evidences, and Professor Hill's Divinity Lectures—and a volume of Sermons, there is little or nothing to reward a second perusal. His Daily Scripture Readings, in three volumes, show that during the last ten or twelve years of his life he never permitted twenty-four hours to pass without making annotations on some portion of the Bible; while his Sabbath Scripture Readings, in two volumes, are made up of reflections and prayers all arising out of an exercise substantially the same. We doubt whether the writer of these very pious, though sometimes not very profound lucubrations, ever intended them to meet other eyes than his own. The "Prelections," though doubtless very useful for the purposes of Class instruction, which they were intended to serve, put in no claims whatever upon public attention, either for originality of idea or grace of illustration. Moreover, whatever in them was of any real value had already been embodied word for word by the author in the Second Book of his Christian Institutes. But the error

of redundancy, which always blemished the style of Chalmers, appears to have fallen, in regard to more than style, upon his biographer.

The Institutes of Theology are set forth in four books—of which the first is introductory, dealing with Ethics and Metaphysics in the abstract; the second, a treatise on Natural Theology; the third, an enlargement of the old Essay on the Evidences; and the fourth, a sort of Dissertation on the Subject Matter of Christianity. In the treatment of these topics Chalmers seldom pretends to introduce what is absolutely new; but whenever he does venture out of the beaten track, he loses himself. For example, in considering the existence of moral right, he denounces at once the theory of Expediency, and that conclusion which resolves virtue into an observance of the law of God. Of course, there remains for him no alternative except to fall back upon "the moral sense"—though he endeavours to conceal his object in a multiplicity of words which, if they do not mean this, mean nothing. What can the reader make of such a statement as the following?—"In the Divinity alone it is that virtue has its fountain-head and its being—not, however in the fountain-head of the Divine Will; but higher than this, and superior to

this, in the fountain-head of the Divine Nature." In the Divine Nature there can be neither virtue nor vice. There is absolute perfection—a state quite apart from any in which either virtue or vice can prevail. For the very term *virtue* means a successful effort to conform a fallible nature to some standard higher than its own; and this, if it be not produced by a "moral sense," or instinct to good, can spring only from a knowledge, more or less perfect, of the will of the Supreme rewarder of virtue and punisher of vice.

Chalmers was a man of genius. His faculties were large, though ill-regulated. His impulses were stronger at all times than his judgment, and his language more fluent than his ideas. As a scholar he was very defective. Even in the "Daily Scripture Readings" this fact is continually forced upon us. As for example, in the wonderment which he expresses at page 98 of vol. i., in regard to the causes from which the antipathy of the Egyptians to shepherds, in the days of Joseph, could have arisen!—and his method of handling the character and proceedings of Balaam, especially with reference to the sacrifice by that impostor of seven bullocks and seven rams!! But to counterbalance these defects, Chalmers possessed energy,

patience of labour, and an enthusiastic love of truth, which he might fail to overtake, at times, both in theory and in practice, but which he never ceased to follow throughout the whole of his career. He was a great man, and has left a stamp upon the character of the age which will not be easily effaced.

We are happy to conclude in the words of a highly esteemed dignitary of the Episcopalian Church in Scotland—the Dean of Edinburgh. His "Biographical Notice," read soon after Chalmers's death to the Royal Society of Edinburgh, well deserved to be published in a separate form. The main objects and honours of the doctor's career are thus elegantly stated in its last page:—

"His greatest delight was to contrive plans and schemes for raising degraded human nature in the scale of moral being. The favourite object of his contemplation was human nature attaining the highest perfection of which it is capable—and, as that perfection was manifested in saintly individuals, in characters of great acquirement adorned with the graces of Christian piety. His greatest sorrow was to contemplate masses of mankind hopelessly bound to vice and misery by chains of passion, ignorance, and prejudice. As no one more firmly believed in the power of Christianity to regenerate a fallen race,—as faith and experience both conspired to assure him that the only effectual deliverance for the sinful and the degraded was to be wrought by Christian education, and by the

active agency of Christian instruction penetrating into the haunts of vice and the abodes of misery :— these acquisitions he strove to gain for all his beloved countrymen; for these he laboured, and for these he was willing to spend and be spent. From the fields of earthly toil and trial he has been removed, and he has entered into his rest. The great business of Christian benevolence, and the contest with ignorance and crime, are left in other hands. But *his* memory will not die, nor his good example in these things be forgotten. His countrymen will do his memory justice. Of the thousands who were assembled to witness the funeral procession which conveyed his earthly remains to the tomb, all felt conviction that a Great Man had fallen in Israel, — that a Scotchman had gone of whom Scotland might be proud, — a Scotchman who had earned a name in his country's annals, and a place in his country's literature, which will not pass away."

OUR DEFENSIVE ARMAMENT.*

WE cannot pretend, within the limits of a single Essay, to discuss the merits, far less to analyse the

* From the "Edinburgh Review" of July, 1852:—

1. *A Letter on the Defence of England.* By SIR CHARLES NAPIER, G.C.B.

2. *Thoughts on National Defence.* By REAR ADMIRAL BOWLES.

3. *A few Words on the Militia Question.* By JOHN WILLIAM CROWE.

4. *Proposal for the Defence of the Country.* By JOHN KENWICK.

5. *National Defences.* By MONTAGUE GORE, Esq.

6. *The Invasion of England.* By AN ENGLISHMAN.

7. *Memoranda on the Necessity of a Secretary of State for our Defence in War.*

8. *Reasons for Rifle Corps.*

9. *The Rifle Musket.*

10. *Our National Defences in England.* By Baron P. E. MAURICE: translated by CAPTAIN ADDISON.

11. *The Rifle Club.*

12. *Observations on Commissariat Field Service and Home Defences.* By Commissary General SIR RANDOLPH ISHAM ROUTH, K.C.B. Second Edition. London: 1852.

13. *A Bill to Consolidate and Amend the Laws relating to the Militia.* Proposed and brought in by Mr. Secretary Walpole, Mr. Chancellor of the Exchequer, and Mr. Secretary at War.

contents, of the round dozen pamphlets of which the titles are prefixed to this paper. We should be sorry, indeed, to be put, under any circumstances, upon the accomplishment of such a task; for though we acknowledge to have read them all, it is but common candour to add, that we have derived very little either of instruction or entertainment from the exercise. Sir Charles Napier, to be sure, writing like an experienced soldier, carries us along with him in every page, even where his reasoning appears to be defective. And he will observe that it is defective in our estimation, only so far as he seems to expect more from undisciplined volunteers than they would ever be able to perform. For his remarks on the relative merits of the Rifle and the Musket, as well as the directions which he gives for the drill of volunteer corps, are excellent; they have our hearty approval. So has Admiral Bowles's *exposé* of the supineness of the Boards, which for thirty years back have administered the affairs of the Navy in this country; it is quite crushing. Nor must we fail to speak, in the terms of respect which are due, of the admirable little work of Sir Randolph Isham Routh, a perfect *vade mecum* for all officers undertaking to discharge the important duties of the Commissariat. But here our com-

mendation ends. The rest either put forth crude schemes for organizing a militia, or cry up the utility as well as the economy of Rifle Clubs, or state over again facts and arguments, with which the public memory must long ere this be overburdened, and which are the more unwieldy that, in nine cases out of ten, they are not facts at all, and as arguments altogether worthless. We think that, under such circumstances, we shall best consult both the wishes of our readers and our own convenience, if we confine our attention to a document — of the authenticity of which there can be no doubt; and of which the virtue will soon come to be tried.

There has not, in our opinion, been laid before Parliament since the passing of the Reform Act, except perhaps the introduction of Free Trade, a measure so important in every point of view as that which Lord John Russell hastily abandoned, and his more fortunate successor took up, modified, and carried. It will be understood, of course, that in thus expressing ourselves, we speak of the *principle* of a Defence Act, and of nothing more. The particular law which Lord Derby has given us may be open to criticism; and when the proper time comes, we shall take the liberty of

pointing out some of the more serious of the defects with which it seems to us to be chargeable. But of the obvious necessity of placing a great and wealthy nation like this beyond the reach of sudden disaster, perhaps of invasion, possibly of dismemberment, whenever it may please a warlike neighbour to pick a quarrel with her, and strike home, no sane man, not being a member of the Peace Society, can, we should think, entertain a doubt. Other schemes, whether of finance or of commercial arrangement, as they address themselves in the first instance to class interests and party feelings, so they become in course of discussion mere party questions. Such were the great measures of Sir Robert Peel's administration; his substitution of direct for indirect taxation; his repeal of the Corn Laws, and consequent emancipation of trade from many of the restrictions under which it had previously laboured. These touched, undoubtedly, the very core of the State's well-being; but they did so through the sides of many deep-rooted prejudices, and bore hard upon the immediate interests of no inconsiderable portion of the community. Hence they were resisted upon their merits by many able and honest persons, of whom not a few, though they may have accepted a

policy, which they now perceive to be irreversible, continue to be as little convinced as ever of its abstract fitness or wisdom. It is not so, nor ever can be, with regard to any measure which seeks only to place the nation in a state of defence against aggression from without. We may dislike the details of such measure, or some of them, and endeavour in a spirit quite free from partizanship to modify and improve them. But the principle on which the measure itself rests, if it be sound at all, is equally sound in its application to each of the parties and classes into which the nation is divided; for it involves a question of comparative security to all on the one hand, or of the continuous exposure of all to great risk on the other. There are, to be sure, persons who pretend to believe that no more wars will arise in Europe; others, that it is the duty of a Christian people to submit unresistingly to wrong, or even to conquest, rather than take up arms.* They, of course oppose every measure of

* The pamphlet entitled "The Rifle Club" seems to embody the views of this class of persons. It was quoted, as our readers doubtless recollect, by Lord Palmerston, in the course of the Militia Debate, and secured thereby a chance of notoriety which its merits never could have ensured to it. The writer, whoever he may be, ought to be very grateful, since he evidently covets the martyrdom of ridicule.

defence, as either uncalled for or sinful. But it would be ridiculous to speak of them as constituting a party, or even as belonging to a class. We doubt whether there be three men out of Bedlam who conscientiously embrace, on religious grounds, this pacific creed. The advocates of passive submission as a politic procedure may be rather more numerous, but are certainly not more wise. We repeat then, that in our opinion, no measure has been proposed to the Reformed Parliament of Great Britain and Ireland, involving so important a principle in itself, and at the same time so completely divorced from considerations of class interest, as the Militia Bill of the late Session. And in this same spirit, without any reference at all to party politics, but looking solely to the two points, first of its necessity, and next of its fitness, we are now going, with the reader's permission, to pass it under review.

And first, with respect to the necessity of increasing, by these or by some other means, the available defensive resources of the Empire.

Whatever deference may be due to the opinions of successive and rival administrations, there is no denying that they go to establish the fact, that some necessity of the sort has long been felt to be

urgent. Whether a militia question in any shape was mooted, either in Lord Melbourne's Cabinet or in that which immediately succeeded, we are unable to say. But we know that Sir Robert Peel turned his attention to the subject as early as 1842, and that in 1844 he prepared a Bill, though he did not bring it forward, not very dissimilar, in its general features, to that which Lord Derby has carried. That Lord John Russell's feelings on the subject were at one time still stronger, he himself has shown, for he would take no refusal. Though checked in 1848, he returned to the charge in 1852, and resigned office in consequence of a literal, and not very important change in the preamble of the Bill which he offered for acceptance. And now the Conservatives, following the same course, assure us, that they cannot be answerable for the safety of the realm unless a better system of military organization be adopted. Moreover, they are so much in earnest, that they consent to all manner of changes in the requirements of their Bill, rather than give it up. It would be presumptuous to treat such unanimity of sentiment among rival cabinets, otherwise than with respect; for a measure of this sort is not one which any minister can be suspected of bringing forward for its own sake.

It can have no tendency to render him popular out of doors, but the reverse. It throws no patronage into his hands, of which the smallest use could be made for party purposes. It adds something — it may add a good deal — to the public expenditure, and certainly interferes, to a greater or less extent, with private business. Can we imagine, that whether Peel, Russell, or Derby, sat at the helm of State, he would steer his vessel into so uninviting a channel, except upon compulsion? The idea is preposterous. The Government of 1852 may or may not have exaggerated the amount of risk to which the country was exposed; and gone to excess in providing means to avert it; or the details of the particular scheme taken up and forced through may not be worth the time and labour that were required to carry it; but to attribute any except perfectly honest motives to the course of legislation which has given us our new Militia Bill, convicts, in our judgment, the parties so speaking or writing about it of indifference to the probability of the accusations they prefer.

But if legislation of this sort was really felt to be necessary, why should it have been so long deferred? We, the people of England, are now, so far as Europe is concerned, in the thirty-seventh

year of peace. Other States have had their troubles, more generally domestic than foreign; we, since the battle of Waterloo, have never fired a shot in anger on European soil, or in European waters, except at Navarino, and that was a blunder. Differences have unquestionably sprung up more than once between us and our neighbours. The affairs of Tahiti, and of Acre, and later still our Don Pacifico feud in Greece, all looked sufficiently black in their turns, and on the authority of the late king of the French, we are told, that the project of an English invasion was at one time seriously considered in Paris. What then? No rupture ensued, no invasion took place; but wise diplomacy did, what it always will do, what indeed it is paid for doing, and without doing which it ought not to be paid; it reconciled the differences between France and England, and saved a great deal of expenditure of blood and treasure to both parties. What is there, therefore, we are asked, in the present aspect of affairs, to induce a persuasion that cabinets and nations will prove more unreasonable in times coming than they were in times past? or that if we do unfortunately get to loggerheads with France, or with any other country, we shall be unable to make matters up again, without fighting?

This is a question which has often been put, with a great air of triumph, both in Parliament and through the press; but in truth it is a very unmeaning one; for whatever the terms may be in which we answer it, they prove nothing either way. There is no reason, which we can immediately point out, why matters should not go on for fifty or a hundred years exactly as they have done since the peace of 1815; but there is quite as little reason why they should. And suppose they were not so to go on, what follows? When I purchase a policy of insurance, I do so, earnestly trusting that the fire or the hurricane, from which I cover my house or my vessel, shall never overtake it. And year by year, on the renewal of the policy, my feeling is one of thankfulnes that as yet the office has not been called upon to pay; certainly not of grudging because so much of my own money has been sunk. Nor am I less likely to take this view of the case if it turn out that on one or two occasions my house has had a narrow escape from burning, or my ship from being cast away. So it is with a nation, and its means of defence in case of war. These are kept up in the hope and with the view of deterring other nations from

drawing the sword; and happy are both the people and their government, so long as they find that the means are adequate to secure the desired end. But other nations, in spite of all our efforts to the contrary, may draw the sword; and then where shall we be, if it shall prove that ours, just when it becomes necessary to appeal to it, is either stowed away in some far off garret, or grown so rusty in the scabbard, that we are unable to pluck it forth? *Aptare in pace idonea bello*, was once proverbial wisdom.

But it is denied that either now, or at any previous period since 1815, this country has ever been incapable of defending itself if attacked. Who makes this denial, or in what sense is it made? If the *laudator temporis acti* mean to say, that England has never been in such a state as that, with fair warning given, she would have proved incapable of engaging successfully in war, we perfectly agree with him. England has been richer and more populous any time between 1815 and 1852 than she ever was previously to the former of these periods. Her people are, and always have been, hardy, robust, and brave; her resources are inexhaustible. Give her time to apply these resources, and to discipline the valour

of her sons, and the objector is right, — she need not fear to stand against the world. But is it probable that the Power, whatever it may be, which has resolved upon breaking with her, and going to war, will announce the intention before acting upon it, so as to afford her the opportunity of effecting these objects? Quite otherwise. The respectable practice of sending forth heralds, and throwing spears into the country against which public wrath is kindled, has long fallen into disuse. Modern diplomacy makes far shorter work of bringing quarrels to a head than of patching them up again. If war be desired, it is a word and a blow with the party desiring it, and woe to the nation which is not ready to ward, and prompt to return it, when delivered. Look back but a little way into history. Napoleon had no just ground of quarrel with Spain in 1807, and did not pretend that he had any, till he filled the country with his troops, set aside the Bourbons, and placed his brother Joseph on the throne. The same Napoleon, in 1812, issued no declaration of war against Russia, till he stood, with 500,000 men at his back, on the frontiers of Poland; and England, to her lasting shame, made Denmark aware of her hostile intentions only when her

fleets and armies appeared before Copenhagen. Certainly the French generals who undertook, a few years ago, to march to London in ten days never contemplated any such preliminary arrangements as members of the Peace Association hold to be, if not indispensable, at all events customary and polite in such cases. It is idle, therefore, to assume, that because her latent might may be adequate to any demand which is likely to be made upon it, England is, and always must be, in a fit state for sudden war. A giant has little to fear from the hostility of a dwarf, so long as both parties are awake, and have full command of their limbs. But let the dwarf catch his gigantic adversary napping, and what will the superior strength of the sleeper avail against the dagger of the waking man?

It is not, however, of her latent might, that the politicians profess to think, who set themselves against making any addition to the defensive preparations of this country. They assert that her regular fleets and armies are sufficient, and more than sufficient, to guard England against the attacks of any foreign enemy whatever. Indeed their cry is for reduction, and especially in the army; which they would withdraw entirely from

the colonies; and of which, they calculate, that if it were concentrated at home, a fourth part, at least, might be disbanded, without in any degree detracting from the amount of force now disposable in case of invasion. At the same time, they hold the idea of invasion in utter scorn; speaking of it as a bugbear, with which superannuated generals and admirals seek to frighten silly people; and wondering that any reasonable person, not being an officer of the army or the navy, should give to it one moment's consideration.

We are always happy in listening to the eloquence of Mr. Cobden, Mr. Bright, and Mr. Milner Gibson, when they address themselves to the discussion of subjects which they may be supposed to understand; we cannot, indeed, go along with them invariably even then. But they must excuse us for avowing that when a question of military preparation, involving the safety or the ruin of the country, arises, they are the very last people in the world to whose judgment we should be inclined to defer. They are all, but especially the two former, men of one idea. They can see no interests beyond those of buying and selling, and believe that the world is to be managed on strictly commercial principles. But, do Messrs.

Cobden and Bright really believe that the passage of the British Channel by a French army of twenty, forty, or even of a hundred thousand men is physically impossible? And if it be not physically impossible, are they so very simple as to imagine that the order, once given, twenty, or forty, or even a hundred thousand French troops would hesitate about making the attempt, even if the preparations on our side to resist the invasion were far more complete than they have been at any given period between the years 1815 and 1852? It is needless, we are aware, to refer the member for the West Riding and the representatives of Manchester to the Duke of Wellington's opinion on these subjects. His Grace's letter, — which all the world besides read with respect, even if here and there an individual ventured to hope that the picture might be somewhat over-coloured, — one of these gentlemen has derided as "obsolete;" and it is but natural that they who pretend to sneer down the greatest commander of the age, should be little disposed to listen to the sentiments of other British officers. But will they equally resist the evidence of foreigners against themselves? We recommend to them the perusal of Baron Maurice's pamphlet:

they will find there, besides a plan for the conquest of England (of which, in our poor opinion, it is too much the practice even in military circles to speak slightingly), ample proof that the matter, which they are pleased to pooh pooh, is not considered a dream or an impossibility on the Continent. Plans for the invasion of England appear, on the contrary, to have occupied the thoughts of statesmen and soldiers in all the continental nations, the whole of whom regard the measure as practicable, whether their feelings towards us be friendly or the reverse. The plan submitted by Carnot to the Directory was noticed in this journal, July 1808. Now a measure which men hold to be practicable, some of them are pretty sure to attempt whenever the inducement becomes adequate, and the opportunity inviting. And though we trust that no occasion for making the attempt will ever be found, still our confidence on this head would be strengthened fourfold, were we quite sure that there were at hand means of defeating it, or, at all events, of destroying the force which should embark on such a service, ere it could find time to inflict any serious damage on this country.

We confess, however, that our hopes are not

very sanguine that the testimony either of Baron Maurice or of General Changarnier, or of any other foreign statesman or soldier, will carry more weight with our friends of the Manchester school than the opinions of the Duke of Wellington. They will doubtless persist in setting up their own judgment against the world, and clinch their argument again, as they have done already, by affirming that if the worst come to the worst, the country is sufficiently protected by her regular fleets and armies. What they desire to have accomplished is this, that all our colonies, not being strictly military posts, shall at once be denuded of troops ; and such a redistribution of the fleet take place as shall secure, in the Channel, force enough at all times to render hopeless any project of throwing an army, either with the strong hand or by surprise, upon the shores of England. There is some plausibility in this device, but nothing more; as a little sifting of the facts on which it appears to rest will show.

To begin with the army. It would be unfair to estimate the comparative strength of the force employed at home and abroad according to the standard of the current year. The war at the Cape has increased the latter force by fully six thousand men. But if we revert to the returns

for 1850-51, we shall find that there were then in Great Britain and Ireland, 59,398 infantry and cavalry, of which 33,568 were in Great Britain, 25,830 in Ireland. The colonies absorbed 39,730, independently of India, where 30,497 found employment.

For our present purpose, the army in India must be left wholly out of the question. We could not keep that rich possession a day were these 30,000 men withdrawn; we should not probably keep it a year, if the force were seriously diminished. The military material with which we have to work is thus reduced to 39,900, or say, in round numbers, to 40,000 men. Now before we take a single step in advance, we must ascertain what proportion of these 40,000 men, if any, require to be thrown aside from our calculation. For probably our Manchester friends do not wish to saddle their own parishes with the families of soldiers enlisted exclusively for service in the colonies; much less to taint the pure breed of Lancashire with any engrafting thereon of buds from a Negro or Malay stock. From our 40,000 men must, therefore, be deducted in the first instance,

West India regiments - - -	3
Canadian Rifle corps - - -	1
Newfoundland veterans - - -	1
Malta fencibles - - - -	1
St. Helena regiment - - -	1
Cape Mounted Rifles - - -	1
Ceylon Rifles - - - -	1
Total of regiments - - -	9

of which the collective force appears to be about 7000 men.

Our 40,000 men being thus cut down to 33,000, it becomes necessary to consider next how even these are distributed, before we can be in a condition to determine in regard to their applicability for purposes of domestic service. And here we find that eight stations, all of them coming strictly under the head of military posts, absorb, on a very inadequate peace establishment, not fewer than 22,740 men. Say that we thus dispose in round numbers of 23,000 men, we shall have left exactly 10,000 to play at ducks and drakes with. But as we have not included under the head of military posts, either the Windward or the Leeward West India Islands, the British stations on the west coast of Africa, Canada, Nova Scotia, St. Helena, or New South Wales, our readers must judge for themselves how far it would be prudent, under existing circum-

stances, to bring home the whole of the 10,000 men of whom we have just spoken as available. Are they prepared to throw Canada and Nova Scotia altogether on their own resources? to commit the safe keeping of the West India Islands to a black police? and to entrust the lives of our honest settlers in Australia, as well as the important royalties which have been too much neglected there, together with the wool farms so essential to the domestic industry of England, and fisheries, of which the full value has yet to be discovered, to the tender mercies of runaway convicts, of the offscourings of America, and the forbearance of half-civilised native chiefs? If they be not, and we are inclined to think that they will not be, there is an end of the Manchester argument at once. You have not 10,000 or 1000 men to dispose of. But supposing their views on this matter to be different from what we assume, still difficulties remain out of which we at least see no means by which they are to extricate themselves. The garrisons of Gibraltar, of Malta, of the Ionian Islands, and Hong-Kong, are all set down in the army estimates at a figure which would be manifestly out of character were war seriously to threaten. Instead of 2934 men, Gibraltar requires six or seven thousand to man the works im-

perfectly. Malta, which has now about the same strength of garrison with Gibraltar, would require reinforcements at least equal in amount; while in the Ionian Islands, if we are to retain them at all, we must station, certainly not fewer, probably a still larger amount of troops. Thus, three European posts, the loss of any one of which must seriously affect our position as a maritime Power, would, of themselves, make an immediate demand upon us for the total amount of force, to which we are told to look as furnishing additional means of defence at home. In the event of sudden war, should we be able to meet such demands? But this is not all.

No procedure can be more delusive than to take up a printed return of the number of troops stationed anywhere, but especially at home, and to argue from it as if you were thereby exactly informed of the strength of the army which is available for operations in the field. Of the 60,000 men described as doing duty in 1850-51 in Great Britain and Ireland, probably not more than 50,000 were effective, and of these a large proportion, perhaps a fifth part, were recruits not yet dismissed drill. Say, however, that you had 45,000, or even 50,000 men disposable, and that either more matured reflection had induced you to abandon the

project of bringing home the garrisons from your colonies, or that war broke out so suddenly as to render the operation impracticable — what are you to do with your 50,000 men. The dockyards must be protected, the Channel Islands garrisoned, and the few strong places which exist in the United Kingdom occupied. It would take at least 30,000 men to do this imperfectly in England and the Channel Islands alone; if you look to Scotland and Ireland at the same time, probably 50,000 would be required for garrison duty. Where are they to come from? To be sure there are 16,000 enrolled Pensioners, of which, probably 12,000 are as well qualified for this species of service as any troops in the world. And the Dockyard Battalions, though their time must be too valuable for employing them at such a crisis in guard mounting, and so forth, would always be at hand, in the event of an attack, to give battle. But estimating the services of both descriptions of force at the highest, it will still appear that so far as operations in the field are concerned, the assistance which they can undertake to render is very small. The Pensioners will indeed set at liberty 12,000 troops of the line; the Dockyard Battalions cannot liberate a single man; for from the hour the war begins, their presence in the

yards will be required day and night, which they can abandon only when the enemy is at the gates. Now 12,000 added to 50,000, gives a total of 62,000, and no more, which, after providing for the occupation of all the garrisons in the United Kingdom, will leave you exactly 12,000 wherewith to march against the enemy. And even this, be it observed, can be accomplished only on one point. You may have a field force of 12,000 men either in Great Britain or in Ireland, but you cannot have it in both; for the aggregate of both armies — the British and the Irish — including Pensioners, gives us 62,000 men, and no more; and of these, 5000 at the least will be cavalry.

But this, we shall be told, is not a fair statement. Sir De Lacy Evans has shown, that, inclusive of marines, metropolitan police, coast-guards, Irish constabulary and yeomanry, a larger army than the Duke ever commanded in the Peninsula, may be brought together. We confess that such a statement coming from an officer of General Evans's character and experience surprised us greatly. He speaks of 5000 marines as the portion of that fine force doing duty on shore, and assumes that by a stroke of the pen they may be transferred to the land army. Of course they can, if such be the

pleasure of the Government. But would they not be much more usefully employed on their own element, in war steamers, or steamers transferred from the mercantile to the naval service, wherewith an enemy might be prevented from approaching our shores; or, should this unfortunately prove impossible, could they not be so placed that by means of them the invading force might be cut off from communicating with its own country? And as to the Metropolitan Police and the Irish Constabulary, surely the gallant member for Westminster forgets that they are neither of them soldiers; that you have no more right to march Sir Richard Mayne and his people, with muskets over their shoulders, to the coast, than you have to enrol and regiment the beadles of London, or to convert the parish constables of Surrey and Sussex into a brigade of light infantry. Observe, then, the inconsistency into which the General's zeal has hurried him. He counts upon the London Police and the Irish Constabulary for military service, on the sole ground, we presume, that they are enrolled bodies of men. Why does he not go farther? Are not the hackney coachmen and cab drivers, the railway police and porters, the fire-brigade, the coal-heavers, the scavengers, nay, the London victuallers themselves, all

enrolled in like manner, and registered too? Why not regiment them, and march them to the coast wherever danger threatens? We have no doubt that most of them would turn out quite as readily; we are sure that you have precisely the same right in law to turn them all out armed and accoutred as you have to make soldiers of the Metropolitan Police; but this is not all. When General Mayne and his army march out of London, who are to take care of the lives and properties of the citizens? Has not Sir De Lacy Evans seen enough of war to teach him, that not the least terrible of the consequences of an invasion would be the bringing forth from their lurking dens of all the desperate characters in the country, and the probable commission by them, however watched, of excesses quite as horrible as the worst that could be apprehended from the foreign invader. Has he ever read what happened in London, after the landing of William of Orange; not from Dutch soldiers, but from English thieves and incendiaries, who seized the opportunity of a brief suspension of government eagerly to prosecute their respective callings?

It appears then, first, that you have no right whatever to employ a single policeman as a soldier, except upon his own voluntary offer; and next,

that were the whole body to volunteer their services, it would be imprudent in the extreme to employ them in the field. For the immediate consequence of their removal to a distance would be, that the duties of watch and ward, and of constabulary patrol, would devolve, both by night and day, upon the citizens; who would not only discharge it very inefficiently, but, soon growing weary of the labour, would cease to discharge it at all. No doubt, the Metropolitan Police might afford considerable support to the army, were an enemy at the gates of London, and barricades choking up our streets. So, at such a crisis, would every Londoner with the heart of a chicken in his bosom, to the best of his ability. But this is not what we want. We desire to meet the enemy, to fight him, and to beat him, before he shall have reached either Hyde Park or Hackney; and to enable us to do this the Metropolitan Police must not be reckoned upon. Neither may we take into account the Irish Constabulary, magnificent, as regards both their *physique* and *morale*, as we admit them to be. Though accustomed to the use of arms, and invaluable for the sort of half-military duties which fall to their share, they could not, with any regard to the internal peace of their own country, be with-

drawn from it; indeed, we question whether it would be possible to concentrate any considerable portion of that force even in Ireland itself. For how, in this case, are outrages to be prevented, which even now, with posts everywhere, and roads continually patrolled, occur but too frequently? As to bringing the whole 12,000 across St. George's Channel, no sane man would, under any circumstances, propose to do so. You could as easily march Sir R. Mayne to meet a French army on the shores of Bantry Bay as bring Sir Duncan Macgregor to reinforce the corps with which you should propose to fight a battle on Barham Downs or at Hastings.

The Marines, the Pensioners, the Metropolitan Police, and the Irish Constabulary being thus disposed of, it remains to speak only of the Coast Guard and the Yeomanry. And of the former it may suffice to observe, that the same line of argument which applies to the Police applies to them. The Coast Guard have special duties to perform. They are scattered along the sea-board in time of peace to prevent smuggling and the damage which it works to the revenue. Their services, in this respect, would be quite as necessary in the event of war, and there would be other and more urgent calls

upon them. After hostilities commence, the whole sea-board becomes exposed to the risk of sudden descents, for purposes, not of conquest, but of plunder and general annoyance. During the late war we had sea-fencibles everywhere, commanded by officers of the navy, whose duty it was to keep a look-out all round the island for privateers. We should certainly not be able to dispense with similar precautions now, when steam has added so much to the facilities for sudden attack and rapid retreat in maritime warfare. Instead of withdrawing the Coast Guard, in order to reinforce the army in the field (an arrangement against which, by the way, the Lords of the Admiralty would probably protest), we should be obliged to add to its numbers. For batteries are useless unless there be practised gunners to man them; and as we cannot tell which of our coast batteries is likely to be brought into operation first, it would hardly do to have any of them, especially at the outbreak of a war, without a few trained marksmen to lay the guns and fire upon an enemy.

With respect, again, to the Yeomanry: as it is altogether a cavalry force of a somewhat heterogeneous description, and very imperfectly drilled, we cast no slur upon either the courage or the patriotism

of its members when we say, that against a regular army, and for operations in the field, it is not very much to be reckoned upon. In the first place England, especially in the South—where, if assailed at all, it is most likely to be assailed — offers many obstacles to the employment of masses of horsemen; the inclosures are frequent, the woods many, the general shape of the ground is undulatory and much broken. The best cavalry in the world could do very little upon it, and bad cavalry could do nothing. At the same time our yeomen would make capital Cossacks; their knowledge of the country, and their habits of crossing it after the hounds, would enable them, in small parties, to harass an enemy's convoys and to straiten his foragers. But they could not stop the march of one weak column of infantry, and against artillery and regular cavalry they would be helpless. Besides, how many of our gallant yeomen could be got together on a sudden and at one point? When Bristol was in the hands of a mob, in 1831, it took a day and a half to collect forty or fifty yeomen from the parishes in the immediate vicinity and to march them to the rescue. How many of the Durham, or Northumberland, or Yorkshire squadrons would show themselves in Kent and Sussex within a week after the enemy

had landed? And long before a week 20,000 men, in the state of preparation in which we were in 1851, would have marched from Lydd or Pevensey to London and laid it under contribution. We should be sorry to speak, or to be thought to speak, slightingly of the yeomanry cavalry of England. It is a very useful force in its own way, — and, to the utmost extent of its means, would render the occupation of any portion of our native soil extremely uncomfortable to a foreign enemy. But when statesmen come gravely to calculate the amount of force which is disposable in order to meet an invader, with any prospect of stopping him midway between the sea-coast and the capital, they will do well to lay the yeomanry cavalry altogether out of view.

It will be said that in dealing with this part of our subject, we have made no reference whatever to Artillery, which is an important ingredient in the composition of all armies, and especially of one which is to act on the defensive, and at home. True; and the omission has not been unintentional on our parts. The truth is, that nobody seems to be exactly aware what the strength of our available artillery is. General Evans has taken it at a hundred guns, and quoted Sir Hew Ross in support of his state-

ment; Sir Hew, however, contradicts the member for Westminster, and declares that the artillery may be able to bring eighty guns into the field, but not more. Whereas Colonel Chesney, who appears to have well considered the subject, affirms that fifty-two are all that can be counted upon, and that even of these the equipment is by no means perfect. Now, if it be necessary to the proper working of artillery in the field, that the guns and waggons shall be drawn by well trained horses, that there shall be waggons enough and to spare, with wheels and carriages as many as the demands of a regular campaign are likely to require, Colonel Chesney, we suspect, is right. But allowing, as some of our most experienced officers do, that with less than this an invasion could be met, then we are ready to go beyond Sir Hew Ross, and to accept General Evans as an authority. Suppose, then, that there are a hundred field guns and howitzers at Woolwich and elsewhere; with all the necessary appointments of harness, ammunition-waggons, forge-waggons, spare-wheel-waggons, &c., and men enough sufficiently drilled to work them; —and assuming that as regards draft we have only to lay hands upon the carriage-horses of the aristocracy, or to strip half the omnibuses which ply in the streets; —

there still remain certain grave points to be considered. What will a hundred guns do in any part of Europe, if there be but five or six thousand infantry or cavalry to protect them; and how shall we, in particular, work one hundred guns, thus unguarded, in the south of England, where cover for skirmishers is so frequent and so good, that even against the old-fashioned regulation musket, a duel between artillery and infantry would be all to the disadvantage of the former? Do not let us be misunderstood. There can be no question in regard to the propriety of supplying the force which in the event of an invasion is to cover London, with a numerous and well-appointed artillery. And forasmuch as the education of an artillerist is a tedious process, we should advocate, in the event of any increase to the regular army, an addition to this particular corps in preference either to infantry or cavalry. But it requires no minute acquaintance with military affairs to understand, that artillery by itself can do nothing. If we are ever induced to send a hundred guns into the field, under the protection of five thousand or even ten thousand infantry and cavalry, we may lay our account with having the whole park captured, and our little army put to the rout, supposing it to risk an action with

twenty thousand infantry as good in every respect as our own.

It appears, then, that taking our disposable artillery at the largest figure which has been assigned to it, and making as much as possible of Pensioners, Police, Constabulary, Dockyard Battalions, Coast Guards, and Yeomanry Cavalry, we should have found it impossible, in 1851, to stop the march of even 20,000 men upon London, supposing them to have effected a landing anywhere along our shores. For though it be true that we may have had more than twice 20,000 of all arms in the United Kingdom, and that by means of railroads most of these could be brought to the Metropolis in time, such a concentration could have been effected only by abandoning every other town and fortress to its fate, and leaving Ireland utterly defenceless. Consider also the extent and nature of the inconvenience to which the whole community must have been put in order to effect this object. It takes a good many carriages and trucks to transport 1000 infantry with their arms, light baggage, and ammunition. It would take still more to accommodate 500 cavalry; and quite as many to contain 20 guns, with their horses and waggons. How and whence are the necessary carriages to be provided?

Will it be wise, on the first alarm, to call up to London from Bristol, Manchester, Preston, Newcastle, Edinburgh, Glasgow, Aberdeen, &c., the necessary means of transport for 25,000 men, with the guns, waggons, and stores of every sort which are required to render them effective? Or shall we content ourselves with laying an embargo at each station on carriages sufficient for the accommodation of the troops which are stationed near it? In either case you interrupt at once all the internal communications of the country. There could be no further correspondence between London and the provinces, except by telegraphic despatches, or by some small mail train despatched once or twice a day. Business would be entirely stopped; for railway carriages are useless without stokers, enginemen, and guards; and we do not think that any of our companies is so rich in officials as to be able to carry on its ordinary operations with a full set of its people in reserve. Moreover, when we have from 25,000 to 30,000 men, with horses, guns, &c. in London, where are we to find the means of sending them out of it again, along any one particular line or even by two parallel lines? By continuing our embargo, it will be said, and transporting from Euston Square or Paddington every truck and

stoker, as we march our troops, to London Bridge or Waterloo Bridge. Be it so, but in this case you must persist in stopping trade indefinitely; because, having employed all the railway lines at your disposal to carry the troops to the point where the enemy is expected, you will never have the cruelty, after shooting men and horses out, to abandon them. Indeed, we have read somewhere, that one of the great advantages of railway communication is, that it renders 10,000 men as good for purposes of defence as twice the number can be for offensive purposes. The 10,000, we are told, after fighting for a while, have only to mount their railway carriages, and steam back to a second and third position; which they may maintain, as they did the first, as long as shall be judged expedient, having at all times the means of a safe and speedy retreat within their reach. We put it to our readers whether in all their reading they ever met with an assumption so ludicrously inadmissible as this? Think of a train laden with 25,000 men, 100 guns, 5000 horses, ammunition waggons, forage, provisions, stores, — and heaven alone knows how much besides — beginning to make its exit from London Bridge and pursuing its course towards Dover? Why the tail of the procession would have scarcely

reached Greenwich, when the head was at Ashford —so that instead of bringing your force in a compact body into action, you would render inevitable its entire destruction in detail; for we defy you to get back again. Besides, what is to become of the internal commerce of the rest of the country all the while, seeing that you have managed to jam up and expose to certain destruction, between Greenwich and Ashford, all the steam-carriages, enginemen, stokers, and other servants of all the railway companies in the kingdom?

The truth is — and it is folly to hide it from ourselves — that steam traffic on shore, however valuable it may be to the Power which has determined to act aggressively, is not only useless, but is, in some measure, hurtful, to that which is compelled or makes up its mind to act purely on the defensive. The former, encouraged by the feeling that means of transport to his own frontier are direct and ample, will mature his plans at leisure, and get everything into a state of complete readiness ere he utters so much as a threat. The latter, however strong his suspicions may be, can make no preparations except generally. If, indeed, as in our own case, the sea interpose between him and his neighbours, he may crowd his own har-

bours with steam frigates, and keep a constant and sharp look-out into the harbours on the other side of the Channel; but as far as regards the chances of a contest by land, he must be in a state of perfect suspense to the last. He cannot possibly tell where the blow is to fall. To centralise his army, therefore, anywhere except in the capital, would be absurd; to disseminate his forces, with a view to observe different points at the same time, would be fatal. But suppose him to have collected a stout army in the capital, and to have made arrangements for sending it forward, in detachments to certain positions, which have been carefully selected, to the east, to the west, to the north, to the south, —is it quite certain that the enemy will give him an opportunity of justifying the wisdom of these selections? We should think not. An enemy desirous of striking at London will make his approaches by roads which are as far as possible removed from all lines of railway. Say that he had succeeded in effecting a disembarkation at Folkstone Harbour, or at Dungeness. If he land in sufficient force he will probably mask Dover, or make himself master of it, which, in the present state of its defences, would be no very hard task; and then marching by the old coach road through

Canterbury to Faversham, pass thence by way of Maidstone to Blackheath. Of what avail, against such a line of operations will the South-Eastern Railway be, except, perhaps, to get the Guards as far as Maidstone, or probably to Barham Downs, in time to give battle. But unless you destroy the enemy in a first encounter, all the uses of your railway lines in which you had before put so much trust, are gone; for it is not quite so easy as newspaper writers suppose to withdraw a beaten army from the field under any circumstances; and to place its wreck in railway carriages, amid the hurry of a retreat would be simply impossible. In a word, from the hour in which hostilities actually begin, and invading and defending armies face each other, railways become to the latter an impediment rather than a support. Loth to abandon, yet unable adequately to cover, these means of rapid approach to the capital, the defenders will manœuvre, as troops always do when the councils of their leaders are distracted; and they will probably incur the punishment which troops and their leaders usually suffer if they continue to waver when they ought to act.

But we are making nothing all this while, it will be said, of the native hardihood of the population,

nor taking into account the overwhelming naval force which the country has at its disposal. The former is surely worth considering; the latter ought to be, if it is not, sufficient of itself to place us beyond the reach of danger. Both statements may be true—we believe that they are true—up to a certain extent; yet the inference which is sought to be drawn from them is far from being certain. And in regard to the first, we have the testimony of universal experience to adduce against its admissibility. The native hardihood of its population has never yet prevented a country from being invaded and overcome by regularly disciplined forces; and it never will. We do not question the personal courage of nine hundred and ninety-nine Englishmen out of every thousand. We are willing to regard every country gentleman and yeoman whom we meet as an absolute Paladin in a round hat; but these are not times when personal prowess, however transcendent, can be matched against skill and practice in the art of war. The native hardihood of the population, if it brought a crowd of ill-armed and worse-disciplined men together, would result in a disastrous and dispiriting defeat, with enormous loss of life to the vanquished. And as to lining hedges, and

filling woods, and holding open towns and villages with people, nine out of every ten among whom would not know how to load their pieces, the idea is not worth debating. The militia of Virginia and the neighbouring States, though much more accustomed to the use of fire-arms than the general population of this country, did not stop the march of a handful of disciplined troops to Washington; yet, after a few months' campaigning on the Canadian frontier, the militia of New York and Massachusetts became formidable opponents to the best of our veteran soldiers. It is not, therefore, to what an entire population may be made after a few months' training that we ought to look, but to what they are without any training at all; more especially here, in England, where the effect of the Game Laws is to prevent a countless majority of them from ever handling a fire-arm at all. Hence, taking all things into consideration, while we firmly believe that the world can produce no match for the English soldier, after he has served a few years in the ranks, we believe, likewise, that if you search Europe through, you will not find a population so little suited as our own to improvise a good fighting army. And we are further of opinion, that half a dozen battalions of the Chasseurs de

Vincennes would make minced-meat of forty thousand honest and brave lads from the plough-tail or the workshop, were any officer so improvident as to afford them the opportunity.

But the fleet! Is all confidence to be withdrawn from that? Certainly not. Whatever a fleet can do, commensurate with its strength, the British navy will accomplish. But consider what the British navy on a peace establishment is, and take into account the innumerable demands that are made upon it in all parts of the world; and then say how far we should be justified were we to regard it as a sufficient bulwark of itself against invasion, even upon a large scale.

If there be some diversity of opinion in what ought to be well-informed circles on the subject of our armaments by land, and especially in regard to the efficiency of our artillery, the differences which prevail respecting the capabilities of the fleet are still more perplexing. One official—belonging, to be sure, to an ex-Administration—has affirmed, that without withdrawing a keel from any important station abroad, he will undertake, in twenty-four hours, to arrange such a chain of steamers between the North Foreland and Portland Bill as shall render impossible the passage

unnoticed, and therefore unopposed, of a single vessel, far more of a squadron, from any port in France to the English shore. Another being Secretary to an existing Admiralty Board, asserts that this is a mere delusion, and demonstrates, as far as figures can demonstrate anything, that we should still be inadequate to keep command of the Channel were the Mediterranean left without a ship of war to observe it, and the whole of our disposable block ships and screw steamers put in a serviceable condition. A third, acknowledging the inadequacy of the force actually in commission, assumes that what is wanting there can be supplied at any moment, by bringing the mercantile steam navy into line. A fourth meets this argument by pointing out that it is not ships, but seamen that are needed; and that if the crews of the mercantile navy were to volunteer *en masse*—which he considers that they would scarcely do—their numbers would be insufficient to work and fight their own vessels, much less to make good the deficiencies which are palpable in the manning of the Royal Navy. "Who shall decide when doctors disagree?" Certainly not the writer of this essay, so far as the points under immediate discussion are concerned. But possibly neither Lords, nor ex-Lords, nor

their secretaries and admirers, will take it amiss if we venture to point out certain matters of fact, which seem by all, in the late debates, to have been forgotten.

It is not the business of the British navy to afford protection to the heart of the British empire exclusively. We have colonies and settlements in all parts of the world, every one of which requires that it shall be looked after—not alone because a certain proportion of her Majesty's subjects dwell there, but because each port and settlement is an entrepôt of our commerce and a place of shelter and supply for our commercial marine. Our political relations with foreign States are likewise complicated and numerous. We are bound by express treaty, for example, to protect the independence of Portugal against all the world; to co-operate with France and America in the suppression of the slave trade; to maintain the little kingdom of Greece in its integrity; and to throw our weight into the opposite scale should one or more of the great Continental Powers evince a disposition to encroach upon the rights of their neighbours, as these have been generally recognised by Europe. Meanwhile our merchants send their vessels not only to every harbour in civilised

Europe and North America, but to Turkey, to Egypt, to the Dutch and other settlements in the Indian Archipelago, to China, up the African rivers, to the States of South America, under whatever form of government or of anarchy subsisting; and require, and have a right to require, that they shall be protected at each of these various places in the prosecution of their lawful callings. Are we, because it now appears that there is not force enough in the Channel to render the invasion of England impossible, suddenly to disregard all these treaties—to withdraw this protection from our merchants trading abroad—and to abandon to whomsoever it may please to take them up, the foreign posts and settlements which cost so much blood and treasure to acquire? For abandoned to all intents and purposes they will be, if, after a rupture—say with France or with Russia, or with both—we leave them to the protection of the inadequate military garrisons by which they are now held. Surely this would be both impolitic and unjust. Nor would such a course of proceeding answer our purpose. It is this multiplied and continuous action—this service in all climates and in every sea, which renders the British navy the admirable machine which we find

it. Bring your ships home, and crowd them into the Channel, where, as often as it begins to blow, they will seek and find shelter in their own harbours, and your seamen will soon become what you describe the seamen of France and Russia to be — fair-weather sailors, and nothing more. Apart, then, from considerations of national honour, and the duty of protection which the State owes to all its citizens, the nature of our peculiar position, which requires that we should be the first maritime Power in the world, imposes on us the necessity of exercising the Queen's ships and their crews in every quarter of the globe. And looking to the many great interests that are at stake, we really cannot lay our hand upon a single naval station, not excepting the coast of Africa itself, of which we should be inclined to predicate that it is at this moment unnecessarily crowded with ships of war. But this is not all.

Our readers have probably not forgotten that some time ago, while the "invasion panic" was at its height, Mr. Hume — certainly not the individual among our legislators most prone to take alarm — found fault with the Government for keeping so large a proportion of the fleet at Lisbon and in the Mediterranean, and demanded that it

should be ordered home. Some of the ships were, if we recollect right, ordered home accordingly; and their arrival in Cork harbour gave great satisfaction to timid economists; but besides that the general policy of such a move was, under the circumstances, very doubtful, a moment's reflection must satisfy every instructed man that, as far as the protection of England or Ireland from invasion is concerned, it was quite nugatory. We do not want ships of the line, or sailing frigates and sloops, to cover our shores from an enemy's flotilla.* They would be perfectly useless if employed in such a service; for they could not, in any state of the weather, prevent a whole fleet of steamers from passing them by and running them out of sight; while in the event of calm the long guns of this same steam fleet would knock them to pieces. No doubt their crews might be turned over to man her Majesty's steam squadron, such as it is. Some of them might be transferred likewise to the General Steam Navigation Company's vessels at Blackwall or Leith; others to as many of the West Indian and Oriental steam ships as chanced to be in the

* A great change has taken place in the matter of our steam navy since this essay was written; but the general argument still holds good; for England is not the only naval power which has multiplied its war-steamers.

Mersey; indeed, there is no reason why the river steamers themselves, every one of which, we are told, might carry a gun and render good service, should not receive a portion of them. But such arrangements as these are not made in a day. First, the merchant steamers must be embargoed, and the order to detain them might go forth at a moment when all, or next to all, are out of port. Then, the vessels when taken possession of must be strengthened, armed, and completed with fuel and stores; thirdly, the crews from the abandoned line-of-battle ships must be transported to the various ports where their re-embarkation is to be effected. Say that a week or even four days are required to effect these arrangements, will an enemy who is ready and determined to invade you wait till they are completed? We should think not. Before you can assemble your steam fleet, or half of it, from the Clyde, the Forth, the Mersey, and the Thames, twenty steamers, each with a transport in tow, will have crossed the Channel, and 40,000 men, with their cannon and stores, would be landed at any one of a dozen convenient places between Margate and Torbay.

It will never do to meet this statement by a counter assertion that war could not break out so

suddenly as to leave the English Government without time to concentrate a sufficient force in the Channel to prevent invasion. War may, and probably will, threaten long enough ere hostilities commence. But war has threatened before, as in the Tahiti and the Acre cases, without occurring at all; and so prone are the people of this country to discredit what they are unwilling to believe, that no amount of threatening short of the sound of an enemy's cannon is ever likely to convince them that war will come at last. Would any Minister dare, hostilities not having actually commenced, to lay hands upon the Oriental or West Indian Mail steam fleet, and filling it with seamen and guns of his own, send it to cruise up and down the Channel? Would the proprietors of these fine vessels, or would the shareholders in any other steam navigation company, submit to have their bread thus taken out of their mouths, or would the merchants of England tolerate such an interference with their business? And suppose no hostilities took place after all, what account would the Cabinet, which had thus played the fool, give to the House of Commons for having made itself ridiculous in the eyes of Europe, and done such enormous damage to the trade of the country? In

our opinion, therefore, they who count upon the mercantile steam navy as applicable to defensive purposes in war, cannot have rightly considered the subject. It might, and probably would, render excellent service in helping to cut off an invading force from its supplies by interrupting the communication between the French and English coasts. But to carry it into line in sufficient time to resist an invasion — if an invasion were to be attempted — is impossible.

Again, consider the effect upon our national prestige, if, in order to cover the shores of the mother country, we leave her outposts, especially those in the Mediterranean, to the defence of their present inadequate garrisons. It has elsewhere been shown that, including the Maltese Fencibles, — a regiment not, we suspect, very much to be relied upon except for parade purposes, — we have under 3000 effective troops of all arms in Malta. To man the extensive works which command that island at least twice as many soldiers are required; yet Malta is within a few hours' steaming both of Toulon and Algiers. Among the four larger of the Greek islands which it has been considered politic to occupy, less than 4000 men, inclusive of artillery and sappers, are scattered. What will follow if,

having waited till our fleet leave the waters, the French make a descent upon these islands, either simultaneously or one by one? And how shall we appear in the eyes of Europe, when, with all our traditional boasting as "rulers of the waves," we are found unable to shut the door against an attempt which would as certainly prove successful as it was made? For Corfu is the only island in the group which can be said to be fortified; and there the works are at once too extensive for the garrison, and feeble because incomplete. It appears, then, that the recall of the Mediterranean fleet at a moment when the storm was gathering, might lead to consequences, not indeed quite so fatal as the loss of London, but of very grave issue. Besides, would the commander of that fleet be able to come in time; or are we seriously thinking of resigning the control of the Mediterranean, in peace as well as in war, to our neighbours?

But is it our deliberate opinion that Louis Napoleon, however ill disposed, would be able to collect such a force of steam ships and soldiers in the ports of France as would justify him, under any circumstances, in hazarding a descent upon England without so alarming the English Government as to lead to demands for an explanation? And in

the event of such explanation being either refused or proving unsatisfactory, do we think that ample time would not be afforded to equip steamers and sailing ships enough to blow his flotilla out of the water? It is our deliberate opinion that such a throw is upon the dice. We do not think that it is likely to turn up: we believe that there are nine chances to one against it. But the tenth may come; and the consequences to England, if it did come, would be so disastrous, that no moderate amount of inconvenience is to be considered as intolerable which promises to avert it. Why should such a contingency be rejected as impossible? First, because the lines of rail from Paris to Cherbourg are not yet completed; and without lines of rail much more time would be required to concentrate 50,000 men on the French coast than to cover the Channel with English guard ships. Secondly, because the moment Napoleon begins to move troops towards the coast, whether by rail or otherwise, we are warned, and begin to prepare for the worst. Thirdly, because were all our sources of information to fail, including ambassadors, consuls, and the "Times Commissioner" — or supposing that, under the pretext of a great military and naval review, Napoleon were to succeed in getting a sufficient army

assembled, with adequate means of transport to carry it across the Channel; — there would still remain to be effected the slow and difficult operation of embarking, with a voyage, and, last of all, a debarkation, quite as tedious, and far more full of danger than the embarkation. Has not Sir De Lacy Evans stated in Parliament that 50,000 men, with their guns, stores, and horses, could not, let the weather be ever so favourable, be disembarked on the coast of Kent in less than ten days; and does he not support the opinion by reference to the landing of the British Army in Mondego Bay, under Sir Arthur Wellesley, in 1807? Admitted: and the illustration is every way worthy of the argument.* Sir Arthur Wellesley arrived in Mondego Bay just after a furious gale had ceased to blow, when such a surf broke upon the shore as rendered the approach of a row-boat impossible. He was forced to wait till the swell had subsided, and then, with no other means than the ships' boats afforded, to pass his troops by driblets over three miles of rolling sea. And this in the year 1807, when the British Government knew as little

* Since this paper was written, the landing of 40,000 English and French troops on the open shore at Eupatoria, has set at rest for ever the question which is here argued.

how to equip a warlike expedition as the Caffres do of land-surveying, or the New Hollanders of strategy. But why, as the Secretary at War fairly reminded him, did the gallant member go so far back in history, doing thereby scant justice to himself. Sir De Lacy Evans acted, if we recollect right, as Deputy Quarter-Master General to General Ross's little army, which, on the 19th of August, 1814, effected its landing at the mouth of the Patuxent in ten hours. He must have had some share in making the arrangements which produced such results. Again, the same army, under the same guidance, landed near Baltimore, on the 14th of September following, in six hours, marched the same day about seven miles up the country, fought a battle and won a victory. No doubt the British fleet had perfect command of the sea, and the weather was propitious on both occasions. But, as far as the debarkation is concerned, the naval superiority of the invaders would have served every purpose had it remained with them only twenty-four hours, and it does not appear to have been backed up by any extraordinary preparations beforehand. If ever a French steam fleet make a dash at England with 40,000 or 50,000 men on board, it will do so completely provided with

stages and flat-bottomed boats and all the other necessary appliances for throwing its living cargo ashore. And for the rest, has General Evans forgotten that, in 1806, Napoleon's army of England, 100,000 strong, was so appointed and drilled that it embarked, with all its *matériel*, in one hour, and disembarked again, after floating about for a while, in two hours? Surely the gallant member does not wish us to believe that our neighbours have degenerated to such an extent as to render that impracticable, in the present age of steam navigation and improved mechanical contrivance, which was actually done forty years ago, when steam-ships had no existence.

But without a line of rail to Cherbourg, it is idle to speak of concentrating there such an army as would justify the most ambitious and daring of men in hazarding a descent upon England; and, granting that this difficulty were to be got over, should we not hear of the project so long before it was ripe, that ample opportunity would be afforded of defeating it? The absence of railway communication between Paris and Cherbourg would certainly render more difficult the establishment of a base of operations at that port than if such communication existed. But how long is this state of

things to continue? A line of rail to connect Cherbourg with the French capital is already determined upon, and begun. It will probably be completed in a year. But if the case were otherwise, we should not the less act prudently in organising a defensive system now; because neither are we to consider the present as the only time when danger may threaten, nor is Cherbourg the only port in France whence a flotilla might take its departure. Napoleon the First selected Boulogne as his place of muster. Napoleon the Third may assemble his troops simultaneously at Boulogne, Cherbourg, Havre, and a dozen harbours besides — with each of which there is railway communication. And if, as the Secretary to the Admiralty will, we think, acknowledge the available steam navy of France, on the narrow seas, be more than a match for ours, why should it not win and keep command of the Channel long enough to admit of the passage of as many troops as there are means at hand for transporting to the English shore? Eight and forty hours of naval superiority would suffice for this; and history shows, that at the commencement of our wars, especially, France has more than once swept the Channel for a longer period than eight and forty hours.

Finally, with reference to the warning which it is supposed will reach us, it may be sufficient to observe, that he who assumes this begs the whole question at issue. The ordinary garrison of Paris seldom falls short of 50,000 men; and it is fully equipped with cavalry, artillery, and stores. To transport it to the coast, at the expense of one of those outrages on private property which the French Government may at any moment commit, but on which our own could not, even on a pressing emergency, venture, will require, at the most, eight and forty hours. Six hours more will see the whole on board; because each detachment, as it alights from the trucks and carriages, will pass on into the particular vessels which are told off to receive it; and at nightfall, on the third day, the armada will be at sea. We do not imagine that all this can be done without some intimation reaching London of the events in progress. It will be vague, however, and probably come late; because a movement of this sort must, of course, be preceded by the severance of the galvanic wires at Calais, and an embargo upon every thing that can float, all along the French coast. But supposing our Government to learn the truth about the same time that the French troops are settled in their

transports, — and assuming the present order of things afloat and on shore to hold good, — what steps could be taken to intercept the expedition, or to hinder the enemy, first from landing, and next from inflicting such a blow on the credit of the country as it might hardly ever recover? We cannot answer the question. No doubt Plymouth, Portsmouth, and the Medway would send out every thing capable of carrying a gun which could be moved by wind or steam; and possibly there might be some fighting, in mid-channel, with one or other of the squadrons which covered the French Armada in flank or rear; but as to stopping the movement, or destroying the transports with all their living cargo, the thing would be utterly impossible. Indeed, we might go further. The application of steam to navigation has reduced the Channel pretty nearly to what the Rhine or any other broad and deep river used to be fifty years ago. An army, determined on crossing will find the opportunity of doing so, in greater or less force, at almost any stage in a war. For blockades with steam fleets are out of the question; and steam ships move with such certainty, as well as with such speed, that the aggressive power which has made up its mind to sacrifice, if need be, one

or two vessels of war, will always be in a condition so to occupy the look-out squadrons, as shall enable its transports to steal by under cover of night, and reach the opposite shore ere day dawn. We say again, emphatically, that the chances against any attempt of the kind are, in our opinion, many. But neither the attempt, nor the accomplishment of it, is impossible. And who can consider without dismay the consequences to our national greatness, which would ensue, were a French marshal, at the head of 50,000 men, to reach London; or a French general, with 20,000, to burn Portsmouth, or Sheerness, or Chatham?

Though we have not yet exhausted this part of our subject, nor quite, we trust, worn out the patience of our readers, the diminishing space at our disposal warns us to go on to another. For enough, we think, has been said to affirm the necessity of some measures of defensive arrangement, rather as a preventive of war and its threatenings than for any other purpose. Let us consider now the nature of the step which Lord Derby's Cabinet has taken with a view to meet the exigencies of the case. Their measure can scarcely be called a Militia Law. It is a law for embodying an army of reserve, by voluntary enlistment, should the

voluntary principle suffice; by compulsion and the use of the ballot, should the voluntary principle fail. We think that Lord Derby has not been well advised to attempt the soldering together of two systems so discordant. They will not work in conjunction. The man who is drawn by ballot is to receive no bounty — the man who volunteers is to be made richer by 6*l.** Is the reflection that he has been forcibly, and without any fee, withdrawn from his ordinary occupations likely to become less painful to the pressed man, because he sees his comrade, who probably had no settled occupation to give up, rejoicing over the pot of beer wherewith the liberality of the State has supplied him? Quite otherwise. The pressed man joins his regiment reluctantly. He never would have put on a red coat if he could have helped it. He is out of spirits — probably out of humour — and the tem-

* There was no such difference formerly, even in the case of regulars. Hale observes, in his Pleas of the Crown, that while an abusive prerogative of pressing by compulsion had grown up concurrently with the usage of retaining soldiers by voluntary indenture, a consideration or pay was given to the first as well as to the last. The issuing commissions to imprest men and the compelling men to take *press* money (*præstitum*) or otherwise to imprison them, hath been a practice, he says "long in use."

pest in his breast is little likely to be allayed by the taunts and gibes with which the well-feed and constitutionally reckless volunteer will be pretty sure to greet him. Nor will it serve the angry man's purpose to draw analogies between the Militia Law of 1852 and the Impressment Acts, as they operated on seafaring men during the late war. The impressed seaman learned by degrees to make the most of a situation which was unavoidable. Once on board of a King's ship, he knew that a King's man he must continue: and it not unfrequently occurred that he was kept so long at sea, that the desire to return home died out. In like manner, the militia-men of the late war adopted the feelings, as indeed they led the life, of soldiers of the line. They came, at last, to take a pride in their profession, or which, perhaps, approaches nearer to the truth, they contracted habits which totally unfitted them for any other. But the new militia-man is to turn out only at stated seasons, and to apply himself to drill, during periods, possibly of six weeks, certainly of three, and in due time of two, in each year. To the pressed man this hardship will grow more and more intolerable on each renewal of the drill season; indeed, its recurrence may seriously affect his

prospects in life; for he cannot evade any demand that may be made upon his services, because the settled nature of his business, which made him reluctant to enlist in the first instance, will keep him stationary, and therefore always within call. The volunteer, on the other hand, if he show himself at the second muster at all, will do so, because he has either made no exertion to get into steady work, or has failed. But will he show himself at the second muster? Colonel Wood, of the Middlesex regiment, a great authority, as we are told, on this subject, says that he will. Colonel Wood, it appears, raised 1100 men during the late war by voluntary enlistment, and not one of them deserted. Very likely; but Colonel Wood's 1100 men were not in the same position in 1809 that a regiment of militia will be in under the law of 1852. He had his men embodied for five years together. He lodged them in barracks — marched them from place to place throughout the United Kingdom — and governed them according to the terms of the Mutiny Act, from January to December. We don't exactly see how they could desert, any more than if they had all been soldiers of the line. But the thoughtless country lad, who considers it a fine lark to put on a red coat this

year, will probably take a different view of the subject when his next season of drill comes round. We venture to prophesy that, at the expiration of twenty-one days he will go back to his village much less in love with soldiering than he was when he accepted the bounty: and we shall not be surprised if we hear of his getting quietly out of the way, a month or two before the second period of his service comes round. Now we object to risking the loss both of the militia-man's services and the Queen's bounty. Doubtless a pressed man may levant in like manner. Probably some of them will, especially among those who, from any cause whatever, have lost their regular employment, or are going back in the world. But the country sustains no damage, in this case, which a fresh ballot will not supply; whereas, in the other, the public is robbed thrice over. We object, therefore, to a system which exposes us to the chances first of losing our 6*l.* — the bounty to the volunteer — next, of losing our volunteer, after we have paid him in advance for his services, and thirdly, for costing us the loss of the labour of a second man, whom the ballot must bring forward, *nolens volens*, to supply the place of the deserter.

We perceive that, both in the Cabinet and

among the supporters of Government in the House of Commons, great stress is laid upon the application of the voluntary principle to the new Militia Law; but, in our poor opinion, this is exactly its worst feature. When you set about enrolling men for general service all over the world, and require them to continue with their colours throughout ten or twelve years, the system of voluntary enlistment, whether the service is to be on land or sea, is the only fair one. Recruits know what they are doing, or are supposed to know it. You propose to make a bargain with them, of which they quite understand the nature, and they either close with your terms or reject them, according as the humour jumps. It is not so with a militia, of which the principle is recognised in the constitution of this and of every other civilised nation in the world; for the service of the militia is merely a modification of that which every citizen owes to his country and to the Government which protects him. Consider the liability to which in civil life all men, without any exception, are exposed. In the event of an actual or apprehended breach of the public peace the sheriff may order out the *posse comitatus*, and every man who hears the proclamation is bound to

obey it. Now if obedience be at once necessary and patriotic in such a case, much more is every citizen within the policy of the old Assize of Arms and Commission of Array; and bound, in case of invasion or threatened invasion from abroad, to arm in defence of his home and the laws. But the Legislature, justly concluding that no benefit could result from a tumultuary assemblage of people under such circumstances, has, from time to time, enacted laws, whereby the duty of learning the use of arms is assigned to certain proportions of the Crown's subjects, and arrangements are made for the selection of the parties on whom this charge shall devolve. Originally, as, perhaps, it may appear superfluous to state, great part of the land of the kingdom was held on military tenure. It was an arrangement to which, as well as to all the more onerous and oppressive of the Feudal incidents, the first parliament which met after the Restoration of Charles II. put an end. But the same body which accomplished this purpose passed also a Militia Act, of which, in spite of endless alterations in its form, and in many of its details, the spirit remained down to the passing of the present Act. We are of opinion that Lord Derby listened to bad advice, and we are sure that

if ultimate popularity was his object he took a wrong method of winning it, when, by the legal recognition of voluntary enlistment, he deviated from that spirit.

Our ancestors, who disputed on the terms of a Militia Bill with Charles I., would be not a little surprised at the issues taken on it to-day. Without wearying our readers with any analyses of the very many Acts which crowd the Statute Book from the 13th of Charles II., in 1662, down to the 42nd George III., in 1802, it may suffice to state that they are all based upon the following principles: —

1. That the nation is bound to provide a military force adequate to the defence of the realm against foreign invasion and domestic rebellion.

2. That such force shall be provided by the various counties of England and Wales, according to a scale which shall in each county be proportioned to its population.

3. That the militia force shall be raised by ballot, to which all, except certain privileged persons, such as peers of the realm, ministers of religion, teachers of youth, &c. &c., shall be liable.

4. That the ballot shall be applicable only to men within specified periods of life.

5. That any person on whom the ballot may fall shall be allowed, at his own expense, to provide a substitute, whose service, as had been the case with scutage, shall count as that of the individual whom he represents, but for whose presence with his colours the person sending him shall be answerable.

6. That the force, being intended for defensive purposes only, shall be managed by the lieutenancies of counties, subject to the general control of the Crown.

7. That all commissions shall be signed by the lords-lieutenant, and conferred only upon persons holding a certain stake in the county, their rank to be graduated in proportion to the amount of their property.

8. That the amount of militia force being fixed by an Act of Parliament, no addition can be made to it except by a vote of the Legislature; nor can it be embodied for a period beyond that which the Act allows, except on some pressing emergency; and that if such emergency arise, and the militia be either embodied or kept more than the time specified under arms, Parliament shall assemble

within fourteen days to confirm or annul the proceeding.

There are many more provisions than these, some having a tendency to mitigate the pressure upon individuals, others guarding against the misapplication of a force, which, though much more numerous than the standing army, Parliament appears to have adopted for its own. Canning distinguished it by the name of the Parliamentary army. On the same occasion in his speech on Windham's Limited Service Bill (1806), he remarked that it was against "all experience that voluntary enrolment should suffice for all the military purposes of a great nation; there is no instance in the world in which it has been found sufficient. Recognising this truth, we have in this country had recourse to a mixture of compulsory service; we have applied compulsion in its most mitigated form, and to home service only." But it was not till 1805 that the expediency of voluntary enlistment was recognised, and even then the matter was handled in a spirit very different from that which Mr. Walpole applies to it. The people were not coaxed or invited to offer themselves, — quite otherwise. But parishes, instead of going to the ballot, were permitted to

accept the services of volunteers, and to pay to each volunteer out of the poor-rate a bounty not exceeding 6*l*. Now the object of this enactment is obvious. It was intended to relax, as far as appeared safe, the tension of a law which had begun to wrap the nation round too strongly; for the permission given in 1805 to volunteer out of the militia into the regular army operated as a considerable drain on the youth and manhood of the country. But this is an arrangement as different in principle from Mr. Walpole's as the condition of the country in 1852 differs from what it was in 1805. Then we were in the midst of a war which threatened to be interminable. We had two separate descriptions of militia on foot; a general one, which went every where throughout the British Islands, and did the duty of troops of the line; the other supplemental or local, which assembled once a year for purposes of training at the chief towns of counties, but never went beyond them. It was into the former militia force alone that volunteers were allowed to enter, and they never quitted it again till after the peace, except by volunteering to serve in some regiment of the line.

We are old enough to recollect the days when

the militia of England was in its prime, and memory has begun to play us false if there was any general complaint of the severity with which the laws for its maintenance were worked. People desired, indeed, to get rid of them, and, with them, of the war which rendered them necessary. But of the tumults referred to during the late debates, as occurring at the stations where ballot-papers were drawn, we cannot recollect ever to have heard. Doubtless there will have been cases like those of *Mouldy* and *Bullcalf* of old before the door of *Mr. Justice Shallow*. But, as a whole, the people knew that a militia was necessary, and they got up clubs and societies every where, with a view to guard themselves, individually, against being taken. They had their money-box, into which each member paid his annual subscription, and when the ballotting-day arrived they were ready for it. Say that a hundred eligible men subscribed annually 1*l.* in the shape of insurance against militia service, and that, by some run of ill-luck, out of a hundred members so subscribing two happened to be drawn in one year;—forthwith they took counsel together. If the two so drawn thought fit to go, they received out of the stock-purse perhaps 15*l.*, or 20*l.*, or even 30*l.*

a-piece. If they preferred staying at home, substitutes were looked out for elsewhere, and invariably found. It is true that as much as 40*l.* has been paid for a substitute. But, except in the cases of men of fortune, who, of course, would have considered it derogatory to belong to a militia club, few individuals any where paid more than 1*l.*, and very often not half so much, in order to secure themselves from being drawn. Why did not Mr. Walpole content himself with purging the laws of 1802 and 1805 of the facilities to jobbing and delay which they afforded in the constitution of the Lieutenancy Courts, and then request the House to sanction their resuscitation? He may depend upon it that his measure would have been at once more effective and more popular than it now is; for militia clubs would have sprung up again in all quarters; and forasmuch as the necessary payments in time of peace must always be trifling, the people would have soon ceased to regard them in any other light than as a small addition to their police rates. Finally, clubs would have taken care to send into the ranks only such substitutes as could be depended upon. For the law of 1805 exempts from service the party chosen by ballot only so long as his substitute shall be

forthcoming. The moment the substitute deserts, the ballotted man is called in, unless he have another substitute ready.

Again, since Mr. Walpole was resolved to alter the spirit of the law, it is somewhat surprising that he should have overlooked the propriety of introducing into his Bill a clause which might have enrolled the population of our maritime places into a sort of sea-fencible force, and thereby provided crews for as many guard-ships as should suffice for the protection of the narrow seas. There are plenty of ships laid up in ordinary, the best of which, by the simple process of fitting them with screw propellers, could be converted into effective floating batteries in a fortnight. But ships without men are useless, and experience proves that under the existing law we can with difficulty get men enough to supply the demands of peace service. What shall we do in the event of a sudden war? Now if Mr. Walpole had added a clause to his Bill whereby the sea-board of the country was required to raise a naval militia, and had he comprehended under the term "sea-board" all towns, villages, and rural districts lying along the coast, and within a radius of seven miles from high-water mark, he would have improvised for defensive

purposes such a body of men as England never before had at her disposal. Consider the use that might be made of such people as the Kentish Hovellers, the fishermen of Sussex, Hampshire, and Devonshire, the crews of the herring fleet, which at particular seasons make the German Ocean alive from Norwich to Aberdeen, — every one of whom, be it observed, has his settled place of abode, and follows a calling, the desultory nature of which would make the prospect of occasional employment in the public service, and on his own element, agreeable to him rather than the reverse. A few weeks' periodical training would bring such a force into perfect order, after which, if you had ships enough ready, with stores and armament moderately complete, the fault would indeed be your own if you failed to interpose to any threatened invasion such a force as would, in all probability, hinder the attempt from being made. We venture to say that a Militia Bill of this sort would be hailed as a boon by all to whom its provisions extended. There would be plenty of volunteers, provided care were taken to fix the periods of exercise at times in the year when other employment is usually scarce, and of desertion there would be no risk. We recommend the

Government to give this hint of ours their serious consideration, and not to despise the warnings of Sir Charles Napier, with whose views on this subject our own pretty well coincide.

But would it not be much better, instead of trifling with a militia at all, to enlist seamen for the Royal Navy, as you enlist soldiers for the regular army; to retain them in the service, say ten years, and if you find that the present strength of either the navy or the army, or both, is inadequate, to raise it to a proper standard and to keep it there. Or if you must have an irregular and subsidiary force in store, why not accept the services of volunteer corps, which have over and over again been tendered, and which neither the past nor the present Government seems to have known whether to discountenance or encourage? Undoubtedly for purposes of war, and even of commanding peace, there is no force, either by land or sea, like a regular army and navy; but can any House of Commons be depended upon in these days for maintaining them at such an establishment as shall insure the accomplishment of the desired end? Are we not at this moment trying to supply what is wanting both in the army and in the navy by a militia law? And

do not those who disapprove of this law affirm that the country supports already a greater number of soldiers and sailors than she requires? We have now afloat in the service, according to Mr. Stafford's statement in the House, 38,000 seamen and marines, including boys. Is Mr. Williams prepared to give us 12,000 more?. Our army at home, including the troops in Ireland and the Channel Islands, was taken, in 1851, at 50,000 infantry and cavalry, with 8000 artillery. Will Mr. Bright consent to increase this force by 25,000 more, and pledge himself never to vote for keeping less than 75,000 regular troops, under the immediate orders of the Horse Guards? It would be ridiculous to require such a concession from the member for Birmingham. He will never make it; and though, under the pressure of an immediate urgency, some Parliament of which he was one of the ornamants should carry the point against him, who will undertake to guarantee a continuance of such liberality? What follows?—Down come our fleet and army again to their ancient state of numerical inadequacy; and that too, it may be, just before the danger appears, against which, by increasing both, provision seemed to have been

made.* But it is idle to discuss this point. However desirable an increase to the regular army and navy of this country might be, no Minister will venture, during a season of profound peace, to propose it. What are we to do then? Fall back upon volunteer corps? Think for a moment. Volunteer corps are made up of men, who, for the nonce, have taken it into their heads that they would like to wear smart uniforms, occasionally practise rifle-shooting, and learn a little company and regimental drill. They are under no control or discipline except that of their own humour; indeed, the moment you try to bring them under discipline they cease to be volunteers. To-day their military zeal may be at boiling-heat, to-morrow it will have fallen to zero; or the weather may be lowering, or private business may come in the way, or any one of the thousand impulses which more or less operate upon all minds, cultivated or the contrary, may render it inconvenient to go out at the appointed hour, and listen to the instructions of the drill-sergeant. There is a fine to be paid, of course—for we must do our volunteers the justice to acknowledge that they inva-

* Have we not a remarkable verification of this statement in the present condition of affairs?

riably begin their soldiering with a settled purpose of going on with it. And for once, or for twice, or perhaps oftener, the forfeit will be submitted to without repining, and a good fund thereby collected for a jollification at the year's end. But people grow as weary of paying forfeits as of playing at soldiers; first one, and then another, will secede from the corps, till it dwindles into a skeleton. Or perhaps the commanding officer, or the adjutant, or the captain of his company, says something sharp to Mr. Snobs, which Mr. Snobs, with the true spirit of a holiday soldier, resents; and though a duel may no longer be the consequence, the country is forthwith deprived of Mr. Snobs's services. In fact, you cannot depend upon your volunteers either to assemble at fixed periods for training, or to turn out at a sudden call should it be necessary to make one. Besides, how many volunteers is it supposed that in time of peace the population would be disposed to furnish, and the Government able to keep up, from year to year, in a state of efficiency? We have heard of offers made by the gentlemen of the Temple, by the students at King's College, and by perhaps a dozen or two more of associations and clubs, chiefly in the great towns in the north of England. But as to

any general desire on the part of the people to arm and regiment themselves, we can discover no evidence that it exists, except in a few declamatory speeches by individuals in the House of Commons. Besides, we have no wish to see arms put into the hands of one class of society only. A national guard is a national nuisance, and the enrolment of the middle and higher orders of the kingdom into corps of volunteers during peace, would soon lead to the setting up of an institution which everywhere else has proved effective for mischief, and nowhere effective for good. When war comes, and the country is invaded, then, indeed, will be the time for all whom the love of country animates to seize their weapons and go forth to the battle. But in the meanwhile, since our economists will not give us regular soldiers and sailors enough, we must be content with the next best force we can get, and that is a militia.

And this brings us to the often repeated question,—What are you to do with your militia when you get them; that is, assuming that they are forthcoming in the hour of real danger? You do not expect in twenty-one days, or in twice twenty-one, to make them fit to take the field against the soldiers of France? Certainly not; nor is it our

intention to oppose them, at least in the first instance, to such a trial. Our naval militia, indeed, we shall send with perfect confidence to keep the narrow seas. They are in their element, and whatever they may lack in instruction as naval gunners, the presence in each guard-ship of a detachment of marine artillery will sufficiently supply. But our infantry regiments we shall immediately distribute through the strongholds to which we have elsewhere made allusion, where, being mixed up with the Enrolled Pensioners, they will at once continue their professional instruction, and be ready, in case an enemy show himself under the walls, to defend them. They were no regular troops which defended Saragossa in 1809; and we should not fear to intrust either Plymouth, or Portsmouth, or Dover, or Chatham, or the Channel Islands, to the safe keeping of a sufficient force of half disciplined militia, having detachments of Pensioners to back them up. By these means the whole of the 50,000 infantry and cavalry supposed to be in the United Kingdom might be either united or formed into two armies, one of which, say 20,000 strong, could watch Ireland, while the remaining 30,000 took the field in England. And if to these be added 100 guns,

well mounted and horsed, with yeomanry cavalry to act on the enemy's communications, and volunteers to harass their flanks, then the traders and gentlemen of London may sleep soundly in their beds. It is not probable that any foreign enemy will ever disturb them.

Meanwhile, having got its militia, the Government will, in our opinion, act wisely if it take steps to put the fleet in an effective state; and improving as much as possible the condition of the regular army and the fortresses, set about arranging some system of defence whereby London may be covered from the approach of an enemy should so dire a calamity ever threaten. And here we cannot do better than refer the members of the Administration to the works of Sir Howard Douglas and Colonel Chesney, and especially to the former. They will there find both evidence of the care and skill which our neighbours have long evinced in the organisation of their navy, and excellent instruction in regard to the steps which it becomes us to take in the same direction. We are no advocates, neither is Sir Howard, for accumulating fortresses and entrenched camps in England. The works which cover our dockyards and arsenals ought indeed to be ade-

quate; and it is little to our credit that Woolwich, perhaps the most important of them all, lies quite open. But except there and in the Channel Islands, the piling up of fortifications one upon another would be so much money sunk; for we neither have, nor are likely to have, soldiers to man them. Even in regard to London, it is our opinion that to speak of placing it, as Paris has been placed, in security behind a circle of redouts, is idle. The extent of London is too great to admit of any operation of the sort; and the inconvenience of confined outlets to a place of such gigantic traffic would be intolerable. But it is only prudent that accurate military surveys should be made of the approaches to it from every side, and plans arranged for entrenching at the proper moment. Again, we trust that steps will be taken to provide the navy with a steam squadron, on which some dependence, at least, may be placed. The performances of our crack war steamers have of late days been disgraceful. We say nothing of the Birkenhead—the calamity which visited her and her heroic crew might have occurred to any vessel on the seas. But when we find the Megæra occupying upwards of eighty days in a voyage between Dover and the Cape, besides

taking fire three times in that interval; and when we further learn that the Hero, on her first trial, broke down between Sheerness and the Nore Light, we are tempted to believe that some cause of failure even more disgraceful than ignorance must operate in our dockyards. These, however, are points which, besides that they are foreign to our present purpose, may, we should hope, be left, without scruple, in the hands of the present First Lord—himself a naval man.* And as to the better armament of the troops, that, we are glad to find, has already begun. Sir Randolph Routh, has shown that our commissariat also demands attention on this occasion.

In conclusion, then, we beg to observe, that our views of this great question have been formed neither to-day nor yesterday. We have long felt that the country was helpless in case of sudden war. We do not altogether approve of the measures which Lord Derby adopted, in order to place it in a state of defence; but we are satisfied that it is better to do little than to do nothing. Time will show where the machine works amiss, and suggest, without doubt, the remedy.

* The Duke of Northumberland was First Lord when this essay was written.

P.S.—Since the preceding pages were written events have occurred over and over again to establish, and more than establish, the ground on which our arguments are rested. The Russian war took us by surprise; and though aggressive on our parts, it taxed our means and resources to the uttermost. The militia raised upon the voluntary principle never came within 30,000 or 40,000 men of the force voted by Parliament. It gave, no doubt, many volunteers to the line, but it stood between the line and the regular channel of enlistment; so that it may fairly be questioned whether, regarded as a medium of recruitment, it did not operate as much to hinder as to promote the process. And —a circumstance quite as noteworthy and far more replete with hazard—it left us in consequence destitute of the description of force to supply which a militia exists. We never had, during the late war, an army of defence such as we could have opposed to an invader; we shall never have such an army, so long as we trust entirely to the embodied militia for filling up the casualties in the line. To speak of the shifts to which we were driven in consequence three years ago—of our German, Swiss, and Italian Legions, of our Turkish Contingents, American Levies, and so forth—may

well bring the blush of shame into our faces. And yet no sooner was peace restored to Europe than the old process began of reducing both fleet and army to the lowest point consistent with any appearance of caution.

It is not our business to determine the measure of blame which attaches, in reference to this matter, to the Government on one side and to the opposition on the other. The opposition, in clamouring for reduction and retrenchment, fulfilled the admitted duties of oppositions in general; and it pursued this course with the greater zeal, that it professed itself afraid to entrust a Minister of Lord Palmerston's assumed temperament with the means of indulging at a moment's notice his warlike propensities. For such tactics the Government ought to have been prepared; yet in the face of two impending wars—the war with Persia and the war with China—and not, it is to be presumed, free from anxiety as to the state of India, it declined to stake its existence on the issue of the struggle, and twice revised and cut down the Estimates after they had been printed. The consequence was a complete military surprise at the outbreak of the revolt in Bengal, and such a denuding of the mother-country of troops and other means of de-

fence, as never occurred before since England became a great nation. Nor have we as yet seen the end of the evil. When the revolt is put down, as we doubt not it will ultimately be, a large European army of occupation must for many years be stationed in India; how to keep up the strength of which, maintaining at the same time a respectable force at home and in the colonies, is a problem which we defy any statesman to solve, unless he be prepared to deviate not a little from the military policy pursued of late years in this country.

The truth is, that time and tide are hurrying us on to a state of things which seems never to have been contemplated by the ablest of our constitutional authorities. In spite of ourselves we must consent to become, more than we have heretofore been, a military nation. Instead of voting an army of 120,000 or 140,000 men, Parliament must for the future be content to vote 200,000; and supply the means of accomplishing its own purpose, by facilitating the process of recruitment. For it is ridiculous, through the columns of a newspaper, to call upon young men who are in the receipt of good wages, whether they be drapers' assistants, or compositors, or correctors of

the press, to relinquish their peaceful occupations for the country's sake, and to shoulder the musket at a shilling a day. Either they will turn a deaf ear to your appeals, as it is natural that they should, or they will answer your raillery with reproaches. Neither, in these days of liberal legislation, need you expect to find any where in England, Ireland, or Scotland, noblemen or gentlemen possessed of sufficient personal influence to bring a thousand, or a hundred, or even fifty young men with them to the Queen's standard. If individuals succeed at all in bartering levies for military rank, they will do so because they bid a higher price for the article than the recruiting serjeant. They do not, therefore, work with but against the recruiting serjeant — they neither add to the gross numbers of men enrolled nor take away from it. What are we to do then? Return to the system of ballot in dealing with the Militia? Even this arrangement, it is feared, will scarcely serve our purpose now; for the Militia cannot be permanently embodied, except on the occurrence of war; and it is to avert war that we desire always to keep on foot a force sufficient at once to supply India and the colonies and to guard against the danger of sudden invasion.

What if we be driven to legalise a system of modified conscription? We may shrink from the contemplation of such a measure. We must, one and all, deplore it; but there really seems to us to be scarcely an alternative. If we be ready to withdraw from India, and to abandon our colonial possessions, it is well. Our place among the nations then will be in the same category with Holland, Belgium, Denmark, and Sardinia. If we be resolute to maintain the Empire as it is, and to keep our place as a first-rate power, we must be prepared to make sacrifices in order to accomplish that purpose. And one of the most obvious of these seems to be that we raise and keep on foot a strictly defensive army by conscription.

NATURAL THEOLOGY.*

FEW names will go down to posterity surrounded by a brighter halo of renown than that which Henry Lord Brougham, by a long life of industry, has gathered about his own. The wonderful versatility of his talent, his untiring energy, both of body and mind, the zeal with which from early youth he has advocated the cause of social improvement, his political courage in times when that virtue was more rare than it is now, and last, though not least, his eminently attractive qualities both as a companion and a writer, combine, not only to render him one of the most remarkable men of his own age, but to establish for him the assurance, whatever value it may have in his eyes, that he will be spoken and written about long after the bulk even of the eminent among his contemporaries shall have passed into oblivion. Not that Lord Brougham, in his capacity as an author, has been either uniformly wise in the selection of his subjects or uniformly happy in his manner of dealing with

* *A Discourse of Natural Theology.* By Henry Lord Brougham.

Re-written from Frazer's Magazine for October 1835.

them—"Non omnia possumus omnes." The genius which aims at success in every branch of human science, can hardly fail from time to time of missing the mark; the mind which is incapable of sustaining for a single day the tedium of repose, runs some risk of occasionally working mischief. And this, as it appears to us, has been Lord Brougham's fate on more than one occasion; and never, perhaps, more conspicuously so than when, in an evil hour, he conceived the idea of becoming at once editor and emendator of Paley's celebrated Treatise on Natural Theology. Why did he set himself to such a task? Paley's Natural Theology stood in no need either of illustration or emendation. It may start with a fallacy—for a fallacy it surely is—that a watch when first seen would set a savage to speculate on the subjects of cause and effect. And it may go on building up arguments, as here and there it unquestionably does, on assumptions which can hardly be said to lie beyond the reach of cavil. But as far as it goes it is, and must always be admitted to be, one of the neatest and most easily followed chains of reasoning with which our language is enriched. Moreover, its objects are as unobjectionable as the arguments by which it pursues them are lucid. It points out in the various

operations of nature, endless marks of design, and leads on the mind, by a very simple process, to accept the idea of a designer. In like manner, by demonstrating that good is the rule and evil the exception, it establishes the fact, that the mind which designed must be a benevolent mind; while the perfect adaptation of all its parts to each particular whole leaves no room to doubt that this creative mind is as wise as it is benevolent. Nor will any thoughtful man shrink from admitting the reasonableness of the inferences which are drawn, though with becoming modesty, from this demonstration. If we believe that the things which are seen proceed from that which is invisible, and are satisfied that, on the whole, the marks of benevolence are as conspicuous in creation as those of either wisdom or might, then we shall not be loth further to encourage the hope, that the Author of man's being may reserve him for a higher state of existence than this, provided his moral and intellectual nature be trained by a proper discipline to enter upon it. But why push the argument further? Does Lord Brougham really believe that he has effected a discovery which had eluded the search of the wisest and best of the philosophers who preceded him in the same field of inquiry? For four thousand years and more,

intellects quite as acute as his own had wearied themselves with diving into this mystery, yet arrived at no satisfactory conclusions. Why should Lord Brougham, in this nineteenth century of the Christian era, either himself pretend to believe, or desire others to imagine, that in natural theology enough is taught to satisfy the yearnings of the human heart and to fill up the measure of the human understanding?

And herein it is, that we are compelled to charge him, not only with getting beyond his own depth as a metaphysician, but with meting out to the distinguished writers, whose short-comings he undertakes to supply, a scant measure of justice. Clerke, Bentley, and Derham, equally with Locke and Bishop Butler, come in for a share of his Lordship's censure; each on account of some defect peculiar to himself; yet all are classed with Paley, on the common ground that not less than he they have failed to bring prominently into view the phenomena of the intellectual system of the universe and the conclusions thence to be adduced. Now not only is this mode of generalising unfair, but its unfairness is double-edged. For, in the first place, if it be a fault to appeal too little to the intellectual system, for proof of an intelligent

cause in the work of creation, neither Butler nor Locke ought to be placed in the same category with Derham and Paley; and, in the next place, it is quite possible to lean upon such supposed evidence with a weight which the nature of the evidence itself will not sustain. And with this fault we hold Lord Brougham to be chargeable. Let us explain ourselves.

After travelling rapidly over the same ground with his predecessors, and calling in to support his inductions the discoveries which have been effected within the last quarter of a century in Geology and its kindred sciences, Lord Brougham, in the third section of his discourse, opens up an argument of his own:

"Hitherto," he says, "our argument has rested upon a comparison of the truths of Natural Theology, with those of Physical science. But the evidences of design presented by the universe, are not merely those which the material world affords; the intellectual system is equally fruitful of proofs of an intelligent cause, although these have occupied little of the philosopher's attention, and may, indeed, be said never to have found a place among the speculations of the Natural Theologian. Nothing is more remarkable than the care with which all the writers upon this subject—at least among the moderns—have confined themselves to the proofs afforded by the visible and sensible works of nature; while the evidence presented by the mind and its operations has been wholly neglected. The celebrated book of Ray, on the Wonders of the

Creation, seems to assume that the human soul has no separate existence; that it forms no part of the created system. Derham has written upon Astro-theology and Physico-theology, as if the heavens alone proclaimed the glory of God, and the earth *only* showed his handy-work: for his only mention of intellectual nature, is the single chapter of the Physico-theology on the soul, in which he is content with two observations; one on the variety of man's inclinations, and another on his inventive powers,—giving nothing which precisely proves design. Dr. Paley, whose work is chiefly taken from the writings of Derham, deriving from them its whole plan, and much of its substance, but clothing the harder statements of his original in an attractive and popular style,—had so little of scientific habits, so moderate a power of generalising, that he never once mentions the mind or any of the intellectual phenomena, nor ever appears to consider them as forming a portion of the works or operations of nature. Thus all these authors view the revolutions of the heavenly bodies, the structure of animals, the various operations of the material world which we see carried on around us, as indicating the existence of design, and leading to the knowledge of a Creator. But they pass over in silence, unaccountably enough, by far the most singular work of Divine wisdom and power, the mind itself. Is there any reason whatever to draw this line? to narrow within these circles the field of Natural Theology: to draw from the constitution and habits of matter alone the proof, that one intelligent Cause governs and supports the universe? Ought we not rather to consider the phenomenon of the mind as more peculiarly adapted to help this inquiry, and as bearing a nearer relation to the Divine Intelligence which created and which sustains the system?"

Lord Brougham not only answers these questions in the affirmative, but goes on to assert, that "this

extraordinary omission had its origin in the doubts which men are prone to entertain of the mind's existence independent of matter." And then, after acquitting Paley and Derham of intentional materialism,—though he charges them with having "no firm, definite, abiding, precise idea of any other (than material) existence respecting which they could reason and speculate,"—he goes on, as he persuades himself, to demonstrate, not only that mind does exist apart and distinct from matter, but that the human mind, or soul, being immaterial, is therefore, on every principle of inductive science, necessarily indestructible, or immortal. We are not going to dispute the facts, first, that the human mind, or soul, is immaterial, and next, that it is immortal; but we deceive ourselves if there be any data in natural theology, considered as a science, to establish these facts, or any just reason to complain of Derham and Paley because they refer but little in their treatises, and that incidentally, to the phenomena of mind, as affording proof of the being and beneficence of one great First Cause, or intelligent Creator of the universe.

And first, with respect to the necessary immateriality of mind. Is there anything in the light of nature to prove that mind or life is other than the

result of a peculiar organisation or arrangement of particles of matter? Undoubtedly, replies Lord Brougham: "The mind, equally with matter, is the proper subject of observation by means of consciousness, which enables us to arrest and examine our own thoughts; it is even the subject of experiment, by the power which we have, through the efforts of abstraction and attention, of turning those thoughts into courses not natural to them, not spontaneous, and watching the results. Now, the phenomena of mind, at the knowledge of which we arrive by this inductive process,—the only legitimate intellectual philosophy,—afford as decisive proofs of design as do the phenomena of matter; and they furnish those proofs by the strict method of induction." Such are his Lordship's postulates, which he proceeds to sustain by reference to the various operations of the mind, and the facility with which we observe them. Reasoning, or the power of comparing ideas, and drawing inferences from them, is one of these operations. Attention, which he justly describes as the most important of all the functions of the mind, is another. Curiosity, or the desire to learn, he places in the same category, as well as Memory and Habit, the latter term being, as it appears to us, a good deal misapplied. Finally, our

passions or affections,—such as Love, Fear, Anger, Contempt, Pity,—are all treated as phenomena of mind, entirely separate and distinct from the influences of matter. Nor is this all. Because such things are,—because men reason, compare ideas, fix their attention on subjects at their will, remember, more or less accurately in proportion as they have exercised the faculty of memory; love, hate, fear, are angry, and despise,—therefore it is assumed that "the evidence for the existence of mind is to the full as complete as that upon which we believe in the existence of matter."

"Indeed it is more certain, more irrefragable. The consciousness of existence, the perpetual sense that we are thinking, and that we are performing the operation quite independently of all material objects, proves to us the existence of a being different from our bodies, with a degree of evidence higher than any we can have for the existence of those bodies themselves, or of any other part of the material world. It is certain, proved indeed to demonstration, that many of the perceptions of matter which we derive through the senses are deceitful, and seem to indicate that which has no reality at all. Some inferences which we draw respecting it are confounded with direct sensation or perception,—for example, the idea of motion; other ideas, as those of hardness and solidity, are equally the result of reasoning, and often mislead. Thus we never doubt, on the testimony of our senses, that the parts of matter touch, that different bodies come in contact with one another and with our organs of sense; and yet nothing is more certain than that there still is some small distance between the bodies which we

think we perceive to touch. Indeed, it is barely possible, that all the sensations and perceptions which we have of the material world, may be only ideas in our own mind; it is barely possible, therefore, that matter may have no existence. But that mind, — that the sentient principle,—that the thing or the being which we call *I* and *we*, and which thinks, feels, reasons, should have no existence, is a contradiction in terms. Of the two existences then, that of mind as independent of matter, is more certain than that of matter apart from mind."

Here we are at issue. Not for a moment denying the fact that mind does exist as distinct from matter, not mistrusting the force of the evidence here referred to—consciousness—so far as it extends, we cannot agree with Lord Brougham in thinking, either that the existence of mind independent of matter is more certain than the existence of matter independent of mind, or that by any process of inductive reasoning it is possible to demonstrate that mind, as far as it comes under the observation of our experience, has any active or conscious existence separate from matter at all.

And here, before going farther, let us point out one of the many fallacies into which his Lordship is continually falling. Can any argument be more illogical than that which he rests on the deceitfulness of some of the perceptions of matter which we derive through the senses. We put out of view for

the present what he says about motion; for in truth we receive *no* impression of *motion*,—it is simply impossible that we can receive any impression whatever, either through the senses or by any other process, of motion. We can see an object as it passes from one point on the plain to another, and receive an impression of that object in a particular state of existence. But of motion, in the abstract, we can receive no impression, either through the senses or in the understanding. But, admitting the truth of his postulate,—and it cannot be denied,—that on the testimony of our senses, we believe two bodies to come together, when, in point of fact, there is still some small distance between them,—what inference are we justified in drawing from this? That matter has no existence? Surely not. But that matter is, in some of its modifications, so subtle, that the most acute of our senses cannot take it in, or deal rightly by it. For if the something which intervenes between every two of the atoms which make up the cast-iron cannon-ball is not mind, what is it but matter? Does Lord Brougham perceive the result to which his argument legitimately tends? If matter be so subtle, that in some of its acknowledged operations it eludes the grasp both of sight and touch, why should it be incapable, under the plastic

hands of the Creator, of such modifications as shall produce those phenomena, of which, because we cannot otherwise account for them, we are accustomed to think and to speak as the results of pure mind.

So much for the demonstration of the mind's immateriality, which rests on the admitted fact that many of the perceptions of matter which we derive through the senses are deceitful. Look we next to the more laboured arguments which connect themselves with the phenomena of mind itself. Because man fixes his attention, reasons, is impelled by curiosity to add to his stock of knowledge, remembers, loves, fears, hates, and so forth, we are required to accept it as a demonstrated fact that his nature is two-fold, and that the portion of him which thinks, reasons, remembers, loves and fears, is an immaterial entity, existing and exercising its faculties independent of the material body, and apart from it.

"What," Lord Brougham asks, "shall we say of that incredible power of generalisation, which has enabled men, even to anticipate by ages, the discovery of truths the farthest removed above ordinary apprehension, and the most savouring of improbability and fiction,— not merely of a Clairvant conjecturing the existence of a seventh planet, and the position of its orbit, but of a Newton, learnedly and sagaciously inferring,

from the refraction of light, the inflammable quality of the diamond, the composition, apparently, of the simplest of the elements; and the opposite nature of the two ingredients unknown for a century after, of which it is composed. Yet there is something more marvellous still in the processes of thought by which such prodigies have been performed, and in the force of the mind itself, when it acts wholly without external aid, borrowing nothing whatever from matter, and relying on its own powers alone. The most abstruse investigations of the mathematician are admitted without any regard to sensible objects; and the helps he derives in his reasoning from material things at all, are absolutely insignificant compared with the portion of his work which is altogether of an abstract kind—the aid of figures and letters being only to abridge his labour, and not at all essential to his progress. Nay, strictly speaking, there are no truths in the whole range of the pure mathematics, which might not, by possibility, have been discovered and systematized by one deprived of sight and touch, or immured in a dark chamber, without the use of a single external object."

Of the phenomena here described — the power of generalisation which some men possess, and the faculty of induction which belongs to others — we have little else to say than that they excite our liveliest admiration; that they more and more impress us with a sense of the power and wisdom of the great First Cause, from whom the universe, including man, with all his powers and capabilities about him, proceeds. But it does not therefore follow that we shall receive as mathematically cer-

tain the postulate that they result from the pure force of mind, relying on its own powers and borrowing no external aid from matter. On the contrary, there are excellent reasons for believing that every operation of the mind — whether it reason, reflect, draw inferences, or arrive at conclusions — is performed in connection with sensible objects, and could not be performed apart from them. Look at the subject closely. When we are preparing a speech, or working out a problem in mathematics, or building up a tale, or indulging in metaphysical speculation — is it not true that words or figures, as the case may be, present themselves to our minds; that we see them as distinctly as the eye can take them in; that we arrange them in such order as shall best suit our purposes, putting aside one and supplying its place with another, till the object which we had in view is fully accomplished? But it will be said words and figures are not sensible objects when so perceived; they were sensible only when the eye or the ear originally took them up; they became ideas as soon as they had been conveyed through the senses to the mind. Granted, but what then? They are still the ideas or pictures of sensible objects, and therefore themselves sensible; just as much as the figure reflected in the

mirror is a sensible object, though it is but the unsubstantial likeness of the object which it represents. What, for example, is TRUTH? An abstract idea, we shall be told. We need not quarrel with the term, though its propriety admits of question; but how much nearer are we brought by the use of it to the point which is sought to be established? The term truth, when applied to practical purposes, is the fitness of things to one another, as divisibility to matter — the tendency of the various parts of matter to unite — the correspondence of a particular passion with the expression of countenance which it calls up — the agreement of a performance with a promise. In the abstract, it is neither more nor less than the image on my mind of five letters which were originally conveyed to it by the sense of sight, and to which the sense of hearing has enabled me, when I speak, to give a particular sound.

It is, therefore, a mere begging of the question to assert that the most abstruse investigations of the mathematician are conducted without any regard to sensible objects. The objects themselves may not be spread out on a table before him — and, so far as other men are concerned, have therefore no sensible existence — but every one of them must

have been presented at some time or another through the senses to his mind, where they were stored up for use by a process which is substantially the same, whether we reproduce upon canvas the similitude of a landscape once visited, or calculate beforehand the return of a comet to its place in the heavens.

That our reasoning is at least as logical as Lord Brougham's, the examples to which he refers us in illustration of his doctrine seem to prove. There are two men thrust at fifty years of age into dark chambers, denied all access to material objects, and left to their own devices. The one had been in possession of the whole of his faculties up to the time of his incarceration, and making excellent use of them, had laid up a large store of mathematical knowledge in his memory. It is perfectly available for use now; and hence, though practically deprived of the senses of sight and hearing, he yet sees and hears in the sensorium as accurately and to as good purpose as he ever did. The other, having from his birth been both blind and deaf, is ignorant of the very forms and sounds of words and characters. He can carry on no process of reasoning whatever, and would be quite as helpless in this respect in the full blaze of noon-day as in his dungeon.

Now why this difference between them? Because

in the first case we have a man who throughout a long life was physically perfect — perfect in his senses, and in the faculties which are called into operation through the instrumentality of the senses. Because in the second we have an imperfect man, destitute from his birth of two important organs, and therefore incapable of receiving impressions without which the process of reasoning cannot be carried beyond very narrow limits. The latter may perhaps be taught so to manipulate certain material substances that he shall be able by means of them to make his wants known, or possibly work some easy sum in calculation. The former, out of the store of knowledge acquired by the senses and laid up by memory for use, invents a calculus, though he cannot see to set down the figures which have aided him in the operation.

Again, whatever may be the conclusion at which we finally arrive in regard to the nature and properties of mind, all experience proves that mind itself, like matter, is subject to frequent changes, and that its faculties are strengthened, or the reverse, according to the degree of exercise to which they are subjected. That they are to a very great extent, if not wholly, dependent upon the material senses for their development — that they strengthen

with the body's strength, and decline with its decay — is a truth which admits of no question. Will anybody contend for the possibility of conveying to the mind of a man born blind any idea of colour, or of making a man born deaf understand what is meant by the written word melody? And should nature ever produce such a monster as a human being destitute from his birth of all the senses, is there any philosopher so wild as to suppose that the mind of the poor creature could be rendered capable of receiving the feeblest impressions of truth or knowledge, moral or intellectual? But it will be said that we are dealing with extreme cases. Well, then, let us watch the career of man as we usually find him, in a civilised state of society, with all his senses entire, and no obstacle interposed to the acquisition through them, or through any other conceivable channel, of moral and intellectual teaching. The immateriality of this man's mind is, we are told, placed beyond dispute by the facts that he is conscious of his own existence; that he is capable of fixing his attention upon abstract ideas, of comparing them one with another, and drawing inferences from them; that he is impelled by curiosity to seek after new ideas, and derives more of gratification than its opposite from pursuing

the search; that he remembers events and can call up trains of thought long past with greater or less facility in proportion as he has cultivated the habit of remembering; and all this without any appeal to the outward senses for their aid, or any visible connection between the images that present themselves to his mind and the forms of material nature by which he is surrounded. Undoubtedly the full-grown man may arrive at this state, but by what process does he reach it?

In the first place, we deny that man is at all moments of his life conscious that he exists. There can be no consciousness unless there be a perception of such consciousness; and the conditions of being through which we pass without retaining any such perceptions are of frequent occurrence. Such a condition is sound sleep; not the broken slumber which, having failed to gain the entire mastery over the senses, makes us the subject of dreams more or less grotesque and ridiculous; but the deep heavy repose of nature — of a healthy nature worn out with fatigue, and finding refreshment in the entire abeyance of conscious existence. Such a state is a swoon, the whole progress of which, in its coming on and going off, must be fresh in the recollection of all who have ever passed through it. A soldier

in battle receives a gunshot wound; the ball strikes him at a moment when he is highly excited, for the enemy have just given way, and he is pressing on to convert the check into a rout. He pays no attention to his wound, but pursues the flying foe, till from loss of blood, faintness comes over him. He sits down. There is a distinct impression upon his mind at first of the actual situation in which he is placed, which, however, becomes more and more vague every minute. The noise of firing changes into the roll of carriages. By and by it sounds like running water. Then a clear lake expands before him, which gradually darkens — then all is a blank. He is told, when his senses return, that he must have lain a good half hour where he fell — yet not one idea passed through his mind all this while. Why? We shall be better able to answer this question when we proceed to the examination of the inference which Lord Brougham draws from the assumed immateriality of the mind — that it is necessarily immortal. Meanwhile, let us proceed to examine the other arguments which are adduced in support of his theory, that the existence of mind, apart from matter, is more certain and irrefragable than the existence of matter itself.

And first of *reasoning*, with its concomitant, atten-

tion, "the great instrument," as Lord Brougham justly calls it, "of reasoning;" the most important, therefore, of all the mental faculties. Of reasoning we have already said as much as seems necessary to our present purpose. We do not contend — we never have contended — that it is the operation of mere matter, subject to a peculiar organisation. But we have asserted — and again repeat — that the subtlest reasoner that ever lived could not carry on a chain of thought, however brief, without a constant reference to images which to himself at least are sensibly present. Whether in light or darkness, alone or in the crowd, words, figures, things, pass as completely through and before his mind as if he spoke them with his lips and touched them with his hands. Indeed the moment they cease to occupy his attention he ceases to think, and drops into a state of temporary unconsciousness. Let us pass on, then, to the faculty of *attention*, of which, looking both to its causes and effects, it is certainly not too much to say that it bears quite as close a resemblance to a material as to a purely mental operation. Consider how it is produced; how interrupted; and being sustained, to what consequences it leads. Lord Brougham is at this moment at his house at Cannes, in perfect

health, we trust, and enjoying — as he always does when there — the balmy breezes and exquisite scenery of that favoured locality. But to us he is as veritably present as he ever was in his life. We hear him maintaining his own side of the argument with his usual earnestness and force. We see the well managed gesticulation, the good humoured smile, the quiet twinkle of the eye, and all this as distinctly as if he confronted us at the table beside which we are sitting. Why? Because Lord Brougham's philosophy is as much a portion of himself as his head or his hand; and it is no more possible for us, who have had the privilege of conversing with him, to study the one, excluding the other from our sensorium, than it would be to arrive at the understanding of what he desires to teach without having stored up his written words in our memory. But a knock comes at the door, and the servant announces that luncheon is ready; whereupon the image of his Lordship fades, and with it all the beautiful argument which we have been combating — a happy event for us, by the way, because long continued attention, such as both the subject and its advocate demand, produces just as acute a sense of bodily fatigue as ensues upon an excess of muscular exertion. Are we then

justified in inferring from the activity of a faculty which is called into operation by the presence to the mind of a sensible object — which deals with sensible objects as long as it continues to work, and leaves us, when its work is over, physically exhausted — are we justified in assuming that because this faculty belongs to the mind, therefore mind exists independent of matter and apart from it? But surely it will not be denied that *curiosity*, *association*, *habit*, and above all, *memory*, are the attributes, not of matter, but of mind,— that they demonstrate wherever we find them the existence of the latter independent of the former and apart from it. Perhaps so — but we can discover no mathematical demonstration of the fact. Curiosity, like hunger, is an appetite. It operates more or less in all men, and indeed in all animals. But its mode of operation differs in no essential particular from that of any other appetite. It leads the curious scholar to turn over innumerable pages, that he may store up in his mind the images of the words which are recorded there — just as hunger impels the houseless dog to pass from one dunghill to another, that he may dig up and devour the bones which are buried in each. And it equally directs the clown towards the booth in the market-

place, that he may take in the images of the jester and the painted and bedizened maiden, and lodge them in his memory for such purpose as may hereafter suggest itself. But what do we learn from all this beyond the admitted truth that man is guided by more appetites than those which are necessary to sustain his animal existence, and that curiosity is one of them? As to the inference that because of the existence of these appetites, the portion of man which is swayed by them must exist apart from his material body, and independently of it, it seems to us as little justified by the premises as it would be to assume that because man occasionally ceases to be conscious of his own existence he therefore ceases occasionally to exist.

If the above reasoning be sound, so far as it relates to the instinct of curiosity, there seems to be no great reason why it should not apply to the cases of association and habit. The great law of association appears indeed to connect mind more closely with matter than almost any other to which both are subjected. A tree growing in a particular spot speaks through the sense of sight to the perceptive faculty, and there rise up in connection with, and pass through the sensorium, the images of things and of persons long changed or removed

—the latter perhaps dead. All these are, to the individual affected by them, just as much sensible objects, for the moment, as the figures and letters are sensible objects to the philosopher, who, in his dungeon, or deprived of the senses of hearing and sight, works out for his own amusement some abstruse mathematical problem. And as to habit, wherein lies the difference, between the case of the blacksmith's arm, of which the muscles are enlarged and the vigour increased by constant use, and the increased faculty of acquiring and communicating knowledge, which the habit of careful study and of teaching frequently communicates to the zealous schoolmaster. Observe that we do not contend for the materiality of the mind, because it is subject to the same laws which control the operations of matter, and seems to be incapable of making any exertion, except through the instrumentality of the organs of sense. The mind may have an existence of its own, distinct from that of the body. We believe that it has. But the process of reasoning adopted by Lord Brougham, and long before him by Berkeley, Bishop of Cloyne, by no means places the fact, if a fact it be, beyond the precincts of doubt.

Still less are we disposed to receive what is

stated in regard to memory, and the phenomena connected with it, as decisive of the great question now before us. Of all the faculties of the mind, memory, as it appears to us, is the most intimately connected with the arrangements of matter, and dependent on them. As too it is the first to come into play, after the child begins to seek other guidance than mere instinct, so it is the first to work irregularly when the bodily powers fail. Many physical diseases also interfere with and derange it. Brain fever, paralysis—nay, some sudden stroke of acute grief almost always weakens —not unfrequently destroys it. But more remarkable still is the circumstance, that as the body grows old the power of remembering recent events ceases, while things and accidents that occurred in childhood remain upon the memory in all their freshness. Compare this with impressions made upon the body at two different stages of man's existence—first, in early life; next, after the frame has arrived at maturity. A young soldier, seventeen years of age, is shot by a French dragoon in the right hand. The wound is slight, for the pistol ball merely grazes the part, leaving no other trace of its progress than a groove in the cuticle, from which the blood flows. He regards it so

little at the time that he not only does not quit the field, but scarcely takes the trouble to wrap the end of his handkerchief round the hurt; yet, in this year of grace, 1857, the scar of a wound, received in 1813, trifling as it was and well nigh unheeded at the moment, remains indelible. The same individual is attacked in 1837, by brigands, while travelling through the debateable country which intervenes between Austrian Croatia and Turkey. A bullet from a carbine strikes him over the right eye, grazing the skin, bringing a flow of blood, and leaving a well-impressed circular mark. Little more than twenty years have elapsed, and no one, except after the closest scrutiny, could discover that he had ever incurred so narrow an escape from death. To what cause shall we attribute the permanence of the scar in the former case and its almost total obliteration in the latter? To this surely—that the human frame appears to be susceptible from without of more enduring impressions in early than in later life. Is it not exactly so with memory, and the impressions that are made upon it? Those which it receives in boyhood abide well-nigh till the frame ceases its functions; those which come to it in after years fade and die out with a facility which grows

greater in proportion as the man approaches the extreme limits that are assigned to human existence.

If there be any force at all in this line of argument when applied to operations which seem to be strictly intellectual, its force becomes infinitely greater if we bring it to bear upon the passions and affections, such as love, hate, anger, scorn. The philosopher, engaged in deep thought, may forget that he has a body to care for, and overlook or be insensible to wants, which, were he less occupied with his own speculations, would not be slow to make themselves felt. The individual under the influence of any strong passion or affection, feels it in every nerve of his physical frame, and becomes by so much altogether materialised. From the mind of a lover the image of his mistress is never absent, and he is impelled to seek her society by an instinct as strong as that which urges him to eat when he is hungry and drink when he is thirsty. The angry man, the frightened man, the "good hater" (a character much admired by one of our most distinguished moralists), is in like manner occupied, while the passion lasts, with sensible objects entirely. He cannot get rid of the image which stirred up the particular affection

under which he labours, and suffers all the while either physical pain, or relief from physical pain from the contemplation of it. Why should the blood, when we are angry, rush with accelerated speed through the veins, and be arrested in its progress when sudden terror takes possession of us, if anger and fear be states of the immaterial mind only, and not also of the material body? Why should sorrow kill and joy bring health in its train if the connection between mind and body be not at least so intimate as to render any attempt, by inductive reasoning, to separate the one, as an existence, from the other, impossible?

Having thus endeavoured, as we think fruitlessly, to demonstrate a truth which admits of no demonstration, Lord Brougham proceeds to what may be called the higher branch of his argument. He has inferences to draw of which the importance cannot be over-rated, and gives a summary of them in the following words:

"Such is the process of reasoning by which we infer the existence of design in the natural and moral world. To this abstract argument an addition of great importance remains to be made. The whole reasoning proceeds necessarily upon the assumption that there exists a being or thing separated from and independent of matter, and conscious of its own existence,—which we call *mind*. For the argument is, 'Had I

to accomplish this purpose, I should have used such means,' or 'Had I used these means, I should have thought I was accomplishing some such purpose.' Perceiving the adaptation of the means to the end, the inference is, that some being has acted as we ourselves act, and with the same views. But when we so speak and so reason, we are all the while referring to an intelligent principle, or existence; we are referring to our mind, and not to our bodily frame. The agency which we infer from this reasoning, is therefore a spiritual and immaterial agency,—the working of something like our own mind—and intelligence like our own, though incomparably more powerful and more skilful. The Being of whom we thus acquire a knowledge, and whose operations, or will, or existence, we thus adduce from a process of inductive reasoning, must be a spirit, and wholly immaterial. But his being such is only inferred, because we set out with assuming the separate existence of our own mind, independently of matter. Without that, we never could conclude that superior intelligence existed or acted. The belief that the mind exists, is essential to the whole argument by which we infer that the Deity exists. This belief we have shown to be perfectly well grounded, and further occasions of confirming the truth of it will occur under another head of discourse. But, at any rate, it is the foundation of Natural Theology in all its branches; and upon the scheme of materialism, no rational, and indeed, no intelligible account can be given of a First Cause, or of the creation or government of the universe."

We will not stop to point out how completely these sentences beg the whole question at issue; or how illogical are the inferences which Lord Brougham draws from it,—that, except we assume the separate and independent existence of mind in

ourselves, we cannot believe in the existence of an intelligent principle superior to ourselves; that the belief that the mind exists (independent of the body) is essential to the whole argument by which we infer that the Deity exists, and that upon the scheme of materialism no rational, indeed no intelligible account can be given of a First Cause, or of the creation or government of the universe. Materialism, as far as the nature of man is concerned, may or may not be an untenable assumption. We believe that it is; in other words, we are satisfied that man is something more than a mere lump of organised and animated matter. But we cannot allow that on this admission depends the rationale of our faith in the existence of a supreme, intelligent First Cause; far less subscribe to the conclusions which Lord Brougham proceeds to deduce from his own argument. What are these conclusions?

"The immateriality of the soul," he says, "is the foundation of all the doctrines relating to its future state. If it consists of material parts, or if it is inseparably connected with any modification of material elements, we have no reason whatever for believing that it can survive the existence of the physical part of our frame; on the contrary, its destruction seems to follow as a necessary consequence from the dissolution of the body."

It will be seen that we are carried by this proposition very far in advance of the ground originally taken up. Hitherto, the effort has been to convince us that mind has an existence separate from that of matter, and independent of it. Now, we are assured that the soul, being immaterial, is therefore immortal. And, the better to prepare us for the proof which is to follow, mind and matter are dissociated by an appeal to experience, after this fashion:

"We may first of all observe, that if a particular combination of matter gives birth to what we call mind, this is an operation altogether peculiar and unexampled. We have no other instance of it; we know of no case in which the combination of certain elements produces something quite different, not only from each of the simple ingredients, but also different from the whole compound. We can, by mixing an acid and an alkali, form a third body, having the qualities of neither, and possessing qualities of its own, different from the properties of each; but here the third body consists of the other two in combination. There are not two things, two different existences. The neutral salt, composed of the acid and alkali, and another thing different from that neutral salt, and engendered for the first time by that salt coming into existence. So when, by chiseling, 'the marble softened into life, grows warm,' we have the marble new moulded, and endowed with the power of agreeably affecting our senses, our memory, and our fancy; but it is all the while the marble; there is the beautiful and expressive marble instead of the amorphous mass, and we have not beside the marble a new existence created by the form which has been given to the stone. But the materialists have to maintain that by matter being arranged in a particular way, there is pro-

duced both the organised body and something different from it, and having not one of its properties, neither dimensions, nor weight, nor colour, nor form. They have to maintain that the chemist who mixed the aquafortis and potash, produced both nitre and something quite different from all these, and which began to exist the instant that the nitre crystallised; and that the sculptor who fashioned the Apollo, not only made the marble into a human figure, but called into being something different from the marble and the statue, and which exists at the same time with both, and without one property of either. If therefore the theory is true, it must be admitted to rest upon nothing which experience has ever taught us; it supposes operations to be performed and relations to exist, of which we see nothing that bears the least resemblance to anything we know."

Can the mind which dictated these sentences be such as we are accustomed to believe that it is, yet fail to observe the palpable fallacy which runs through them? Why should Lord Brougham compare together agents and agencies, between which there neither is nor can be the smallest relation? Unquestionably, the skill neither of the chemist nor of the sculptor has as yet succeeded, nor probably ever will succeed, in so disposing and arranging particles of matter, as that their combination shall produce life, even in its lowest form. But is not such the daily result of nature's chemistry, accomplished in the generation of man and beast, in the incubation of fowls and reptiles, the spawning of fishes, and the

growth of trees, plants and herbs? Nay, has not man himself acquired the art at least of co-operating with nature, and, by the application of artificial heat, bringing the live chicken out of the inanimate egg? Therefore, the materialist may reply, it is not only not the fact, that we are without the experience of matter in combination producing at once an organised body and something different from it; but the very reverse is true, in varieties as remarkable as present themselves to the eye of him who looks only to the diversities that prevail among the things which are visible to the sense of sight in what is called the inanimate world. For the principle of life which is the result of organisation is precisely the same in the philosopher as in the oyster, though in the former it be endowed with faculties of a very high order, while in the latter it seems to produce little else than the bare consciousness of existence and the instinctive appetency of the means necessary to sustain it. But this is not all.

The phenomena which attend the extinction of vitality in any being which was once endowed with organic life (and we have no experience of any other kind of life) would seem, if looked at only through the light of reason, to suggest a theory directly the reverse of that which Lord Brougham here seeks

to establish. The death, whether of a man or of a cabbage, changes, indeed, the organisation of the deceased mass, but it accomplishes nothing more. New organisations follow, by a process which we are able to trace, and with them comes life in new forms, multiplied exceedingly. Fermentation leads to insect life; insect life contributes at least to the rise of vegetable life, which in its turn sustains animal life, and so on in a never-ending circle. There is, therefore, not only no annihilation, as far as we can discover, of matter, but there is the removal, by death, to another sphere, of the principle (since we must so describe it) of vitality. This principle had attained to its highest perfection in the organisation which produces man. It has fallen to its lowest when it gives life to the herb of the field. It works its way back again, either immediately in the vegetable, or by a more circuitous process, through the ruminating animal, into man. Are we not carried by this process to the true explanation of the Pythagoric doctrine of the metempsychosis, by far the most rational of all that were entertained by the believers in the soul's immortality among the ancients? And is Lord Brougham to be classed henceforth among the followers of Pythagoras?

Not so, we shall be told; neither is it candid to

pervert his Lordship's reasoning from its legitimate purpose. It is only of the mind, which reasons, reflects, remembers, and is capable of performing these different operations, when shut out from the influence of external objects, that he speaks. This cannot be other than immaterial, and must therefore be immortal. If the case be so, then is his Lordship's logic more defective than we understood it to be. The mind which is capable of effecting all these operations is unquestionably endowed with faculties of a higher order than belong to minds which are not so capable; but it neither is nor can be one whit more immaterial. For there can be no degrees either of materiality or of immateriality. And if immortality be the necessary sequence of immateriality, then are all the immaterial bodies in the world immortal.

But is it true that the mind of man is the only mind with which we come in contact which reasons, reflects, and remembers? Surely not. It is by its possession of all these faculties,—of reasoning, reflection, and memory,—that the horse is taught to imitate death upon the stage, and the dog to point his game in the field. And the mind of the horse or of the dog, so cultivated, appears, like that of man, to possess the power, to a very large degree, of com-

paring ideas, and drawing inferences from them. Take the following instance:—

Some years ago, we owned a dog which had been our constant companion from a puppy, which had followed us into the field, been present with us in some severe actions, and though neither noticed nor cared for in moments of excitement, either never lost sight of us, or invariably found us out at the close of the day, before we lay down to sleep. As may be supposed, the strongest tie of attachment subsisted between us and our four-footed friend; and the animal—though no pains whatever, in the common acceptation of the term, were taken in her education—seemed to understand our every word and sign. She would guard, till formally relieved, anything belonging to us which was entrusted to her keeping. She would seek for any lost article, and rarely fail to find it. To ring the bell, shut the door, stretch out her limbs and be as if dead, spring from a ship's deck, and bring up a substance which had sunk in the water, at our bidding, were with her acts apparently spontaneous. But two feats performed by that sagacious creature seem to have proceeded so completely from the exercise of the reasoning faculty, that they deserved to be specified.

On a certain night, we commanded a picket in front of an enemy, who was not very generous in his mode of carrying on war; who taking, perhaps, the common-sense view of such a subject, looked upon every British soldier as a proper mark for his bullet; and used, therefore, to creep in upon our outposts, shoot our sentries, and otherwise destroy life, as often as he could. We were patrolling alone, except that our dog trotted behind us, from one sentinel's post to another, when the dog suddenly rushed into a little thicket, which it would have been necessary for us to skirt, barking violently. We stopped at once; whereupon three muskets were discharged, the bullets from which passed us harmlessly by. The next instant, three of the enemy's soldiers fled out of the thicket with our dog at their heels. A few paces more would have brought us in contact with the muzzles of their pieces, and, in all probability, ended our mortal career.

If it was not by a clear process of reasoning that the dog arrived at the conclusion, that the men laid up in the thicket desired to work her master harm, why did she attack them?

Again: long subsequently to the occurrence of the above event, when the dog had begun to grow

older, and her master ceased to be a wanderer, we were seated in our study, intent upon some subject which fully engrossed our thoughts; the dog, which had lain on the rug, rose and placed her head upon our knee, wagging her tail. We took no notice. She continued her appeal, which we still disregarded; and, at last, turning to the bell-rope, she pulled it, and the bell rang. As soon as the servant opened the door, she looked up into our face, wagging her tail again, as much as to say, "You see I have carried my point," and trotted out of the room. If ideas were not compared, and an inference drawn by the mind which dictated these operations, then are we at a loss to conceive under what circumstances the process of generalisation, or inductive reasoning, is carried on. Are we therefore to conclude, that the soul of this dog, the mind which reasoned, drew inferences, and came to a conclusion, being immaterial, is therefore immortal.

But the phenomena of dreams, are they not conclusive of the fact, that the mind lives and is active when the body has become inert; leading fairly to the conclusion, that its existence is independent of material organisation, and not therefore liable to be destroyed in the destruction of such organisation? It is curious to observe how the determination to

support an untenable theory, leads even the most acute reasoner into the most palpable self-contradiction. Lord Brougham believes in the phenomena of dreams, as demonstrating the existence of the mind independent of matter, and the consequent immortality of the soul. And he relates several very interesting anecdotes in order to support this view of the case. For example, every one knows the effect a bottle of hot water applied during sleep to the soles of the feet. You instantly dream of walking over hot mould or ashes, or a stream of lava, or having your feet burnt by coming too near the fire. But the effect of falling asleep in a stream of cold air, as in an open carriage, varies this experiment in a very interesting, and, indeed, instructive manner. You will, instantly that the wind begins to blow, dream of being upon some exposed point and anxious for shelter, but unable to reach it. Then you are upon the deck of a ship suffering from the gale; you run behind a sail for shelter, and the wind changes, so that it still blows upon you; you are drawn to the cabin, but the ladder is removed, or the door locked.

And so his Lordship leads us through a variety of grotesque situations, each of which he describes with the accuracy of one who has filled them. But

what then? Are not all these ideas — the hot mould, the stream of lava, the exposed point, the deck of the ship,—induced by the appeals made under very unfavourable circumstances to the senses? Cease to make this appeal, and what follows? The ideas fade away, and the mind lapses into a state of utter unconsciousness. Indeed, Lord Brougham himself appears to admit as much, when he says, and says truly, that there "seems every reason to conclude that we only dream during the instant of transition into and out of sleep, and when our sleep is not perfect." But if this be the case, what becomes of his postulate that "the rapidity of the mind's operations increases in proportion as the interference of the senses—that is, the influence of the body—is withdrawn"? and hence, "on that account, therefore, the mind's independence of matter, and capacity of existence without it, is strongly illustrated."

From the facts, "that we never dream so much as when our rest is frequently broken, and that an uneasy and restless night passed in bed is always a night studded full of dreams," Lord Brougham infers that mind must be independent of matter. We should draw an exactly opposite inference; but let that pass. His Lordship has a still more curious argument to prove the soul's immortality, which it

would be uncandid to state in any other words than his own. After premising that our idea of annihilation is wholly derived from matter, which, however, suffers no annihilation, but merely undergoes constant change; after truly asserting "that all our experience shows no instance of annihilation; that when the body decays, and is said to perish, it is resolved into its elements, and becomes the material of new combinations, animate and inanimate"—he proceeds:

"It may be farther observed that the material world affords no example of creation any more than of annihilation. Such as it was, in point of quantity, since its existence began, such it still is; not a particle of matter having been either added to it or taken from it. Change, unceasing change, in all its parts, at every instant of time, it is for ever undergoing; but though the combinations and relations of those parts are unremittingly varying, there has not been a single one of them created, or a single one destroyed. Of mind this cannot be said; it is called into existence perpetually before our eyes. In one respect this may weaken the argument for the continued existence of the soul, because it may lead to the conclusion that, as we see mind created, so it may be destroyed, while matter, which suffers no addition, is liable to no loss. Yet the argument seems to gain in another direction more force than it loses; for nothing can more strongly illustrate the diversity between mind and matter, nor more strikingly show that the one is independent of the other."

Observe the bent and tendency of such an argu-

ment so stated. What proof have we of the assumption that mind is created continually before our eyes, yet suffers no destruction? We find it in the fact that mind and matter are essentially different. What proof have we that mind and matter are essentially different? We find it in the fact that, whereas the one suffers neither creation nor extinction, the other is created continually before our eyes, yet is never destroyed! Will Lord Brougham, after this, accuse the simple-minded Christian of reasoning in a circle, who says that he believes in the existence of God because the Bible tells him of God's existence, and believes the Bible because it is the word of God?

We shall not pause to examine Lord Brougham's demonstration of the soul's immortality, which he rests on the circumstance that the mind undergoes many changes in its activity, capacity, and mode of operation; that its faculties, feeble in infancy, grow stronger as the body gains strength, and decay as the body decays, though not so rapidly.

Of this paradox—for a paradox it is, notwithstanding the admitted fact that the mind improves for a while after the body has begun to deteriorate,

—sufficient notice has been taken elsewhere. Had his Lordship been able to show that the powers of the mind never decline at all; that when passion and appetite are altogether dead, and the frame, once agile and vigorous, is paralysed,—that then the flame of the intellect burns most pure; reason, memory, and judgment all exercising their functions with increased vigour; in this case there might have been some ground on which to assert that, of the soul's immortality, nature affords at least more than a glimpse. But he might as fairly expect us to believe that there is no principle of decay in the apple-tree because the flavour of its fruit improves in proportion as it ceases to waste its vigour in producing wood, as to see any necessary connection between the ripening of the judgment through the decay of passion, and the immortality of the being who, by this process, is enabled more perfectly to accomplish the purposes for which he seems to exist.

"But the strongest of all the arguments, both for the separate existence of mind, and for its surviving the body, remains; and it is drawn from the strictest induction of facts. The body is constantly undergoing change in all its parts. Probably no person at the age of twenty has one single particle in any part of his body which he had at ten, and still less does

any portion of the body he was born with continue to exist in him or with him. All that he before had, has now entered into new combinations, forming parts of other men or of animals, or of vegetable or mineral substances, exactly as the body he now has will afterwards be resolved into new combinations after his death. Yet the mind continues one and the same 'without change or shadow of turning.' None of its parts can be resolved or dispersed; for it is one and single, and it remains unchanged by the changes of the body. The argument would be quite as strong though the change undergone by the body were admitted not to be so complete, and though some small portion of its harder parts were supposed to continue with us through life."

We admit the force of this argument. It is the strongest which can be advanced when contending for the natural or necessary immortality of the soul. For no possible contingency of accident effects it; it is as conclusive in the case of a man shorn of the whole of his limbs as of his fellow-man standing in the perfection of his bodily frame. Yet observe how far short it comes of demonstration. You say that, if the mind continues the same, while all, or nearly all, the body is changed, it follows that the existence of the mind depends not in the least degree upon the existence of the body; for, having already survived one total change or entire destruction of the body, it must survive the more palpable change or destruction which takes place at death.

Why? "Because it is manifest that the same process which takes place in the body suddenly at death, is taking place more gradually, but as effectually in its result, during the whole of life; and that death itself does not more completely resolve the body into its elements, and form it into new combinations, than living fifteen or twenty years does destroy, by like resolution and combination, the self-same body." Will this reasoning satisfy the ardent seeker after immortality? We think not.

The subjection of his body to organic change, which, though going on continually, does not destroy life, is not peculiar to man. The same operation is in progress throughout the whole animal creation, and in every individual animal comprehended by it; indeed, it is just as active in the tree, the plant, and the herb, as in man. But this is not all. Constant change in the particles of matter, brought about by organs expressly formed to accomplish that specific purpose, seems to be one of the main elements, so to speak, or conditions of life. For the moment you stay this process, the animal and vegetable equally declines, droops, and dies. But, as has elsewhere been explained, no destruction or annihilation either of matter or of the

living principle ensues on this catastrophe. Matter resolves itself into its elements, and life, by the noticeable process of fermentation, reappears in new forms and combinations. What more can you prove?

That the individual soul or mind of man, which, throughout twenty, fifty, or sixty years, has retained the consciousness of individuality, in spite of its severance again and again from his bodily frame, must exist independent of the particles of matter which compose that frame, and will, therefore, as surely survive their sudden as it has survived their gradual dissolution? You may assume this, and persuade others to believe that it is probable; but where is your proof? In the phenomenon of consciousness? Surely not, unless you claim for the souls of the inferior animals the immortality which you claim for your own; because continuous animal life, independently of consciousness, is a contradiction in terms. In the ceaseless activity of the human mind, not only when the body is awake, but when it sleeps? Surely not; for other animals dream as well as man, the dog especially, as any one who watches him sleeping on the rug can vouch. On the other hand, is not universal experience against you? The individual life which survives a series of organic changes of the body, and is bright

and joyous in proportion as these go forward with regularity, ceases—is put out—the moment you rupture the machinery which carries them on. So at least it appears to us, who can observe only what befalls in the cases of other men. As to our own individual cases, till the moment of dissolution arrive, we are without data on which to form any trustworthy judgment respecting them. We must, therefore, if we have nothing more sure than the teaching of natural religion to direct us, remain, as the wisest and best of the Greek and Roman philosophers remained before us, in continual doubt, anxiety, and terror; unless, like others of a looser school, we prefer indifference, in which case we shall "eat and drink, because to-morrow we die."

But is it true that the best and wisest philosophers of Greece and Rome either hesitated in their belief of the soul's immortality; or, rejecting the notion altogether, were content to circumscribe their hopes of good and their fear of evil within the limits of their own existence in time? Lord Brougham says that this is not true, and is extremely angry with Bishop Warburton for presuming to think otherwise:—

"That the ancient philosophers, for the most part, believed in the future existence of the soul after death, is, he asserts,

'undeniable.' It is equally certain that their opinions upon this important subject varied exceedingly, and that the kind of immortality admitted by one class can hardly be allowed to deserve the name. Thus, they who considered it as a portion of the Divine Essence, severed for a time, in order to be united with a perishable body, believed in a future existence without memory or consciousness of personal identity, and merely as a re-uniting of it with the Divine mind. Such, however, was not the belief of the more pure and enlightened theists, and to their opinion, as approaching nearest to our own, it is proposed to confine the present notice."

In support of this opinion, Lord Brougham quotes a few sentences from the "Phædo" and "Timæus" of Plato, from the "Cyropædia" of Xenophon, and from Cicero's treatise "De Senectute," as well as from the "Tusculan Questions." We are far from disputing either the purport or the value of these quotations. As far as Plato is concerned they are explicit enough: for they teach that he believed not only in the continued existence of the soul after it should depart from the body, but in its individual existence before it became united with the body. And Lord Brougham, putting a similar interpretation, as it would seem, on the words of Cicero, pronounces of the whole class that "they all believed in the soul's pre-existence." Is this satisfactory, as giving support to the argument which had previously been entertained, or to Lord Brougham's reasoning in the

conduct of his argument? Surely not. For if Plato, Xenophon, and Cicero rose up from the study of Natural Religion satisfied not only of the future existence, but of the pre-existence of the human soul, how comes it that Lord Brougham, deriving his light from the same unerring source, arrives at the conclusion that "mind (or the soul) is called into existence perpetually before our eyes?" But this is not all. Warburton, in the third book of his "Divine Legation" maintained that, with the exception of Socrates, there is not, among the whole body of the ancient philosophers, one firm believer in the soul's immortality; that whenever they teach this doctrine it is taught undisguisedly for political purposes; that as often as they deliver their opinions to minds enlightened and philosophic like their own they are tinctured throughout with a scepticism which is scarcely removed from infidelity. For so saying Lord Brougham attacks the prelate in a note; and making every allowance for the extent to which the illustrious Bishop of Gloucester was known to carry his love of paradox, we are humbly of opinion that the ex-chancellor takes little by his motion.

Without stopping to explain whence they took their beginning, without tracing them through the

successive waves of legislators, naturalists, and philosophers, who, in different ages, brought their wisdom from Egypt to Greece, it may suffice for our present purpose to state, that the four schools of theistic philosophy known to the ancient world were the Pythagorean, the Platonic, the Peripatetic and the Stoic. The leading doctrine of the Pythagorean school was, as every school-boy knows, that of the Metempsychosis. But this doctrine itself expressed two very different ideas, according as it was taught to the initiated or the uninitiated, in other words, according as it was received in an esoteric or an exoteric sense. As delivered exoterically, and for the purposes of civil government, it inculcated a belief in the moral responsibility of the individual soul; which, being immortal, could not perish, but passed after death into a new body, or state of being, either more elevated or less, according to its conformity to the will of God and the obedience which it paid to the laws, while in this its state of trial. We need not add that Pythagoras was not the inventor of this system of ethics. It was held in Egypt long before he studied it there; it was taught ages ago, and is still taught by the Brahmins in India; it was entertained in Babylon, and communicated by the Magi to the

Jews, and it is discernible among the mysteries of every species of heathenism which has ever prevailed in the world. Yet Pythagoras himself appears to have been but a very imperfect believer in it. Why then did he teach it? Timæus Locrus, one of the oldest of his disciples, will explain in his work "De Anima Mundi." After showing that the doctrine of a future state of rewards and punishments is necessary to society, he goes on to say: "For as we sometimes cure the body with unwholesome remedies, when such as are wholesome have no effect; so we restrain those minds, by false relations, which will not be persuaded by the truth. There is a necessity, therefore, of instilling the dread of those foreign torments, as that the soul shifts and changes its habitation; that the coward is ignominiously thrust into the body of a woman, the murderer imprisoned within the fur of a wild beast," &c. &c. Such was the exoteric sense in which Pythagoras desired his philosophy to be understood. How do we read it esoterically? That the successive transitions of the soul into various bodies was a physical necessity; that it underwent these transformations independently of all moral considerations whatever; in other words, that the death of each man resulted in new combinations of the matter of

which he was composed, and in new forms of life necessarily incident upon such combinations. Hence the expression of Diogenes Laertius, "that Pythagoras was reported to be the first who taught the migration of the soul from one body to another by a physical necessity." Hence also that magnificent speech which Ovid, who thoroughly understood what he was about, makes the great philosopher himself deliver in his "Metamorphoses."

"Oh, race astonished by the fear of death,
Why shrink from Styx and darkness,—empty names,
The dream of poets, and the false world's scourge?
Believe that bodies, howsoe'er consumed,
Whether by flame funereal, or decay,
Suffer no further ill.—Souls cannot die,
But passing ever from their old abodes—
Seek out new homes, and make their dwelling there."

Here Pythagoras is made to express himself esoterically. The general Metempsychosis is, indeed, inculcated; but it is so put forth as to rob it of all its terrors. It is represented, not as dispensing retribution in a future state for virtue or vice practised here, but as a physical necessity to which all alike, the bad as well as the good, must submit. What resemblance does such a doctrine bear to that which Lord Brougham professes himself able to deduce from the teaching of natural religion?

It is scarcely necessary to appeal to other authorities in order to show either that Warburton is right and Lord Brougham wrong on the point immediately at issue between them, or that the followers of Pythagoras, when delivering their real sentiments, argue to a man against such a future to the soul as our author supposes. Empedocles, Sextus Empiricus, and Teles are all clear upon this head. The words of the last, as given by Stobæus, admit of no misapprehension. He is comforting a friend whom the death of a beloved companion has quite cast down, and he says: "But he will not be again! Well, he had no existence ten thousand years ago, nor during the Trojan war, nor with your immediate forefathers. You are not grieved at these things; but you are concerned that he will not exist in the future." At the same time let us not be misunderstood. The Pythagoreans were undoubting theists. They encouraged the popular superstitions, because they believed that the acceptance of these by the masses was necessary to the well-being of the State. Their own creed was stricter, if not more rational. They believed in the existence and spirituality of one Supreme Cause, and in the immateriality of the souls of men and beasts, which emanated from this Cause. But

their notions of futurity were those of a necessary metempsychosis, resulting in a final absorption of all human spirits into the fountain whence they originally came.

The opinions of the Platonic school, and of their great Master, though very subtle, were mainly founded upon the Pythagorean philosophy and deduced from it. From Socrates, whose disciple he had been, Plato himself derived, indeed, his ethics and his mode of disputation. But to Pythagoras he was indebted for his attachment to geometry, his ambition for law making, and the doctrine of the Metempsychosis. The result of such an incongruous amalgamation of discordant elements was to throw over all his writings, whether political or philosophic, an air of the most shadowy mysticism. That which he affirms in one treatise he contradicts in another; sometimes, no doubt, designedly, because, like all the philosophers of antiquity, he delivered one doctrine to the initiated and another to the crowd, but just as frequently through the impossibility of reconciling and bringing into one the deductions of opposite philosophies.

On the whole, however, it must be admitted that it is with the more abstruse doctrines of Pythagoras

that he is most deeply imbued. He believes in the transmigration of souls, and when discussing it esoterically spiritualises and refines upon it. In his "Gorgias," "Phædo," and "Republic," all confessedly exoteric, his treatment of it is gross enough. For he too was of opinion that the unlettered multitude cannot be kept in order except by the hope of individual rewards and the dread of individual punishments in a future state. He therefore teaches that the souls of wicked men descend into asses and swine; that the uninitiated lie in mire and filth; that Styx, Cocytus, and Acheron are realities. But turn to his "Epinomis," and you will find that, in writing of the condition of a good and wise man after death, he says: "I constantly affirm, both in jest and in earnest, that when such a one shall have fulfilled his destiny by death, he shall at his dissolution be stripped of the many senses which pertain to him now, and partaking of a simple lot, and out of many becoming one, he shall be happy, wise, and blessed." Plato's real view of the Metempsychosis was therefore this: that the changes and transitions assumed by it were the purgations of impure minds, which, by reason of the pollutions they had contracted, were unfit to reascend to the place whence they came, and be

reunited with that substance from which they had been severed. Hence pure and immaculate souls were exempt from transmigrations.

Our space will not admit of our entering more into the details of this subject, which, indeed, has already been exhausted, not so much by Warburton as by Cudworth in his "Intellectual System of the Universe," a treatise to which even Warburton is greatly indebted. The reader who is desirous of mastering it fully can turn to the pages of that learned though much neglected work, where he will find abundant proof that neither Pythagoreans nor Platonists, nor, indeed, the disciples of any other ancient school, studied natural theology as Lord Brougham appears to have done, or were led by it to draw the same conclusions. Such of them as believed in the immortality of mind, believed in the immortality of matter also, regarding the former as the soul, the latter as the body of the universe. Nevertheless, Pythagoreans and Platonists alike argued for withholding a faith so simple from the vulgar. To such they spoke of retribution in a state beyond the present, wherein joy would be brightened and suffering embittered by the memory of time and opportunity wasted or improved here. But one with another they built up their moral code upon a

philosophical consideration of the fitness of things, anticipating nothing more in relation to the future than an entire loss of individual consciousness by absorption into God. Aristotle, indeed, though otherwise generally agreeing with these views, seems to differ from them in this, that he will not allow the pre-existence and consequent immortality of what he calls the sensitive soul either in man or beast. "That all souls cannot pre-exist," he says, in his "Nicomachian Ethics," "is manifest from hence, that those principles of which the action is corporeal cannot possibly exist without the body; as the power of walking without feet. Wherefore, it is impossible that such (the sensitive soul) should enter in (to the body) from without, because, being inseparable from the body, they can neither live by themselves naked and stripped, nor enter with a body" (or in a body). He thus assumes that there are are two souls—one sensitive, the other intellectual; that the sensitive soul sees, hears, and walks, being corporeal; that it had no pre-existence, and must therefore perish with the body; whereas the intellectual soul, pre-existing, enters from without, and, being divine, in no way blends its energies with the body, but acts independently upon it. Surely such conclusions are not very consonant with the

precepts of Natural Theology as Lord Brougham has delivered them.

In referring thus incidentally to Aristotle, we have in some degree anticipated the course of our argument, for to the writings of the Stagyrite one naturally turns for the best exposition of the principles taught in the Peripatetic school, of which he was the head. Not by any means unobservant in his own treatises of the method of a double doctrine adopted by the Pythagoreans and the Platonists, Aristotle yet, in contradiction to their practice, proclaimed the fact to the world, and taught men how to distinguish between his esoteric and his exoteric teaching. Still, it is not always easy to determine what his real opinions were in the matter of which we are writing. The quotation given above makes him so far follow the lead of his Master as to believe with Plato in the immateriality and consequent immortality of the intellectual soul. The following passage, taken from the same book, seems to imply that his faith, even in so unsatisfactory a result, was not very firmly settled: "Death," he says, "is the most terrible of all things; for beyond there seems to be nothing for the dead, neither good nor evil." And elsewhere, in his treatise "De Anima," as if it had been his purpose to show that

he had not referred exclusively to the sensitive soul, he observes that, in regard to its exercise of thought, its loving or hating, it will (after death) neither remember, think, nor love.

We come now to the last of the Theistic schools, —the Stoic, which owes its rise to the teaching of Zeno. Like the founders of all the other schools, Zeno wrote a great deal about laws and a republic, and taught while so doing that there was a state of rewards and punishments hereafter, precisely as Plato had taught before him. Yet we know that it was a fundamental doctrine of the whole Porch that God governs the world by a general Providence, that he neither interferes nor cares for the fortunes of individuals, cities, or peoples; and hence that there can be no responsibility in a world beyond the grave for things done or words spoken here. Indeed, no great while elapsed ere his followers made an open avowal of this creed. Chrysippus laughed at the whole popular belief, and treated the ideas both of renovation and of final conflagration with contempt. Epictetus and Antoninus exercised no circumlocution in the matter. Speaking of death, the former says: "But whither do you go? Nowhere to your hurt. You return whence you came, to a friendly consociation with your kindred ele-

ments. That which was of the nature of fire in your composition returns to fire; that which was of the earth, to earth; that which was of air, to air; that which was of water, to water. There is no Hell, nor Acheron, nor Cocytus, nor Pyrophlegethon." The latter, though a little less dogmatic, is not more consolatory. "He who feareth death either fears that he shall be deprived of all sense, or that he shall experience different sensations. If all sensations cease, you will be no longer subject to fear and misery; if you be invested with senses of another kind, you will continue to exist as such."

Look we next at Cicero, on whom Lord Brougham mainly relies, and concerning whom it is but fair to admit that from time to time he gives expression to sentiments which fall little, if at all, short of the truth as we are trained to receive it. It must never be forgotten, however, when criticising his writings, that Cicero belonged to a sect which professed to have no opinions of its own. The New Academy, of which he was a member, based its philosophy on scepticism. It did not undertake to dogmatise or lay down the law, but arrived at nothing higher than making others acquainted with the views and opinions of the schools which had preceded it. Indeed, so thoroughly was Cicero imbued with this

principle that, even as an advocate, he is described as never speaking from himself, but in every instance taking, as it were, the place of his client, and giving utterance to the hopes, fears, and views of things which one so circumstanced might be expected to entertain. It is extremely difficult, if, indeed, it be possible, to arrive, by the study of his writings, at any just conclusions regarding the opinions of such a man. But the general impression produced is certainly not favourable to the belief that any settled conviction of the soul's individual responsibility rested upon his mind. Take, for example, his first "Tusculan Disputation," in which he is supposed to set forth with extraordinary distinctness, his own views on this head. Speaking of the soul as the principle of motion, he says: "There can be no original of a principle; for from a principle all things take their rise; whereas the principle itself cannot be produced by any other thing. For that can be no principle which is produced from without. Wherefore, it can neither be produced nor perish. And this is the peculiar nature and vigour of the soul, which, if it exists in its unity,—which, if it put itself in motion, —is certainly not born, and is therefore eternal."

We are surprised that, having this sentence within his reach, Lord Brougham should build so

much as he appears to do upon other expressions that occur in the same chapter. If these mean anything definite, they teach neither more nor less than the dotage which is here advanced, namely, a belief in the soul's self-existence without beginning and therefore without end. For what does the philosopher affirm? That to him, entertaining the above opinions, there is no more difficulty, indeed there is less, in comprehending how the soul should exist independently of the body, than how it exists in connection with the body. For this and nothing more is all that is meant by the expression: "But to men, considering the nature of the soul, the question presents itself in a far darker point of view — of what nature the soul can be, dwelling in the body, as in a foreign abode, than what it shall become when it shall have gone out of the body, and arrived at the free heaven, its own proper home?" So likewise it appears to us that the well-known passages which occur towards the close of the "Cato Major" teach nothing very decisively in regard to the point under discussion. One indeed quoted by Lord Brougham, and somewhat inaccurately translated, is the mere outpouring of a spirit conscious of its own worth, and expecting

from future generations the justice which its contemporaries refuse to render to it: "Think you (to boast somewhat of myself after the manner of old men) that I should have undertaken such labours, by day and by night, at home and abroad, if the end of my life was the limit of my fame?" The other, if taken alone, goes farther. But that there was more of the skill of the rhetorician in it than of the deliberate assertion of an accepted principle, the very language in which the writer clothes his ideas, makes manifest: "Oh, glorious day when I shall go forth to that divine council and assemblage of souls, and depart out of this crowd of polluted things." *

Granting, however, that Cicero, as he hoped for the soul's immortality, so, in his own way, and taking his own view of the subject, he inclined to believe what he desired; still, neither Lord

* Why did Lord Brougham, in quoting from the "Cato Major," omit that remarkable passage, which, if it teach anything, teaches that the souls of men existed before they entered into the body which they now animate, and, in some instances, bring with them into their new abode knowledge which had been acquired in a former state of existence? — "Ita quoque esse argumenta, homines scire pleraque ante quod nati sint, quod jam pueri, cum artes difficiles discant, ita celeriter res innumerabiles arripiunt, ut eas non tam primum accipere videantur, sed reminisci et recordari."

Brougham, nor anybody else, will, we should imagine, venture to deny, that there occur in his writings, passages, not rarely but continually, which prove to demonstration, that for such hope and such belief, he had been unable to discover any evidence sufficiently strong to convince his more sober judgment. This is especially observable in his "Epistles;"—in his private letters to his friends, wherein, rather than in treatises compiled for more general circulation, he may be supposed to deliver his own sentiments. Thus, writing to Mescinius he says: "Even as it becomes us to be moderate in prosperity, so are we bound to suffer bravely, not one ill alone, but the entire subversion of our fortunes, by which means we shall reap at least this much of good out of the extremity of evil; that forasmuch as it is fitting in our prosperity to despise death, because it deprives us of all sense, so, being afflicted, we are bound not only to despise, but even to desire it." So when discussing public affairs with Torquatus, and assigning reasons why the brave ought to be little affected by them one way or another, he says: "So to live as if we lived not, is indeed wretched; but to die, no wise man speaks of as a misfortune, even to the happy."

This thought, he adds, "is to himself a source of great comfort under every change of circumstance. Because if I continue to be (after death) I shall suffer no pain, being free from sense; if I cease to be (I shall equally suffer no pain because) I shall have no sensation." And again, in communication with Toranius, he says: "When by counsel (or consideration) nothing can be effected, reason suggests that we bear with moderation whatever may befal, especially seeing that death is the termination of all things, — "*omnium rerum mors sit extremum.*"

These sentiments, delivered without disguise, in confidential correspondence with his friends from whom he has no secrets, are certainly not contradicted by the general tone of the philosophy which pervades his "Tusculan Questions." For there we constantly find, intermixed with subtle speculations, and constituting, so to speak, the moral which is evolved from them, such expressions as these: "By the fear of death the whole order of a quiet existence is disturbed." "For what happiness can there be in life when day and night the thought is always present 'we must die?'" Again: "Such appears to be the order of nature, that as our birth brought to us the beginning of

all things, so our death shall bring the end; for as nothing belonged to us before our birth, so nothing shall belong to us after our death." And yet again: "Who can be otherwise than sad, dreading death or suffering; of which the one is often present with us, the other always impending?"

If such be the legitimate conclusions to which we are drawn by no careless sifting of the arguments of the Theistical schools of ancient philosophy, it would be the merest waste of our own and our readers' time, were we to analyse, however briefly, the opinions of the Atheistic schools. These, by whatever distinctive title recognised, whether as Democratic-Atomists, or Epicureans, or Hylozoics, or Cosmo-Plastics, seem all to be agreed in this, that the universe as it exists is the production of blind fate; that all things, as well in the moral as in the physical world, could not go on otherwise than they are seen to do, and hence that man is no more responsible for his thoughts and for the acts in which they result, than any other portion of the universe is responsible for the condition into which destiny may have cast it. The advocates of such a principle make, of course, no account whatever of the reasons which induce in the minds of such philosophers as Lord

Brougham a belief in the natural immortality and individual responsibility of the human soul. They ridicule even the less recondite immaterialisms of Pythagoras and of Plato, of Aristotle and of Zeno. Being practical atheists they are always absurd, often self-contradictory, but they never profess even the shadow of belief in the immortality or responsibility of their own souls. To refer to them, therefore, as either combating or supporting the argument taken up in this essay would be to injure the argument itself. But it may be well to examine, before proceeding to other and more important considerations, that section of Lord Brougham's work which he introduces to our notice as a "Moral Argument," and of which he justly observes, that being built on the supposed designs of the Creator in connection with the conditions of the creature, it requires to be handled in a humble and submissive spirit.

To do him justice, Lord Brougham handles this part of his argument both humbly and submissively. He is also extremely laconic in his manner of dealing with it. He urges, in corroboration of his belief in the natural immortality of the soul, the old notion that the mind yearns for immortality; and that the tender affections so strongly

and universally operating in our nature, would scarce have been implanted there had not the benevolent Power to whom we owe our being provided for their perfect gratification in a future state. He thinks, too, that in the unequal distribution of good and evil here, there is strong presumptive evidence of compensatory arrangements hereafter. But his chief reliance is upon the universal prevalence of religion among men.

"There can hardly be found a tribe so dark and barbarous as to be without some kind of worship, and some belief in a future state of existence. Now all religions are so far from God that He permits them; He made and preserves the faculties which have invented the false ones as well as those which comprehend and treasure up the true faith. Religious belief, religious observance, the looking forward to a future existence, and pointing to a condition in which the deeds done on earth shall be visited with just recompense, are all facts of universal occurrence in the history and intellectual habits of the species. Are they all a mere fiction? Do they indeed signify nothing? Is that a mere groundless fancy which, in all places and in all ages, occupies, and has occupied, the thoughts and mingled itself with the actions of all mankind, whether barbarous or refined?"

We may be permitted to make light both of the soul's yearning after immortality and of the deductions which are drawn from the prevalence among us of the natural affections. Of the former it is hardly worth while to speak. It is neither innate

nor universal, for many souls are without it; it may be even to such as are most open to its influences a mere delusion. The latter for aught we know, may be thoroughly instinctive, as in savage life, where they rarely influence more than the mother, and generally expire even with her, after the child has attained to mature age; or, finally, they are the results of that great law of mental association on which companionship, civilisation, and the consequent improvement of the species depend. Indeed their obvious uses, in the world with which we are acquainted, are of sufficient importance to account for their existence. We need not, from their prevalence, or in particular cases from their strength, be driven to infer that there must be some other world of which we know nothing. And so in like manner fades from our grasp the hope which we endeavoured to seize, when considering the unequal distribution of good and evil to the virtuous and the vicious here. In the first place we are little able to judge of the happiness or the misery of others, or of the circumstances which combine to produce in them either state of existence. We may be sensible of our own wants, and imagine that we see exactly what would satisfy them, and thereby ensure our tranquillity. Even in this we continually

deceive ourselves; but as often as we look further, and try to understand the actual condition and requirements of our fellow-men, we fall, or run great risk of falling, into the grossest absurdities. Of one important fact, however, there can be no doubt, that happiness and misery are dispensed in the world, as we see it, with a very equal hand; that in every instance the condition of the virtuous man is to be preferred to that of the vicious, and that this is equally the case whether we limit the existence of both to three score years and ten, or anticipate for them a future life of immortality and retribution. A firm faith in this latter doctrine will, indeed, add much to the tranquillity of the righteous, just as the fear of it, if settled, will embitter the wildest enjoyment of the vicious. But whether it be present or no, the condition of the virtuous is undoubtedly to be preferred. "Mens sana in copore sano" seems to comprise the sum of all earthly blessings, and surely we cannot look for such a state of being, except in him who is guided in all his proceedings by right reason, that is by moderation and kindness, in other words by the dictates of rational virtue.

But is there nothing in the fact on which Lord Brougham builds so much, — the universal prevalence of religion among men? Are all religions

a fiction? Do they indeed signify nothing? Far otherwise. The almost universal prevalence of religions among men in all ages and in all countries, constitutes, in our view of the case, the strongest imaginable proof that some religion must be true; and as every one of these, the most extravagant not less than the most simple, inculcates a belief in a future state, we cannot refuse to accept this dogma as a great religious truth. But we arrive at this conclusion by a mental process very different from that which appears to satisfy the understanding of Lord Brougham, and as our own reasoning naturally seems to ourselves to be more satisfactory than his, we shall beg the reader's special attention while we proceed to compare them.

It appears to us that Lord Brougham greatly under-estimates the importance of the visible world, and of its moral government, considered as a distinct portion of the universe. He seems to be of opinion, that if no future state were ensured to man, it would be unworthy of a supreme intelligence to stimulate man to virtue and restrain him from vice in the state which now is. We, on the other hand, are of opinion, that putting altogether out of view the consideration of man's existence in a world beyond the grave, it is every way worthy of the

supreme intelligence which produced this rational creature to guide him continually onwards by moral motives, so that society shall from age to age become more civilised, wiser, better, happier. We say by moral motives, because believing man to be, what all experience proves that he is, a reasonable creature, and therefore gifted with freedom of will, you could not discipline his nature otherwise than by teaching him to balance the prospect of a more enduring though remote good against the enticements of an immediate good to be followed by some lasting evil. And no such lesson could by any possibility be impressed on him, otherwise than by intelligible appeals to his reason and his judgment. According to Lord Brougham, man is naturally an immortal being, who must answer in another state of existence for the things done in this; for which reason he is permitted by the benevolent author of the universe to excogitate for himself religious systems, all of them imperfect, some ridiculously absurd, in order that he may be supplied with motives sufficiently cogent to constrain him to seek virtue and avoid vice. We, on the contrary, are of opinion that the Creator who should thus deal with his rational and responsible creature could hardly deserve to be regarded as either supremely wise or supremely

benevolent. For there can be no connection whatever between supreme wisdom and falsehood induced through ignorance or indifference to truth; nor is that supreme benevolence which leaves the creature to accomplish imperfectly what it was quite within the power of the Creator to supply him with the means of accomplishing perfectly. On the other hand, there is no lack either of wisdom or of benevolence in declining to restrain man, by a perpetual miracle, from first becoming indifferent to truth as it has once been communicated to him, and by and by building up upon it a great superstructure of error. For if it were supremely wise and good to give to man at his creation the nature which belongs to him, supreme wisdom and goodness are best exhibited by the refusal violently to interfere with that nature, and change it at any period in man's future existence.

We accept, then, as proof of the reality of religion, its almost universal prevalence among men, not because, with Lord Brougham, we believe that man has worked out, or was ever capable of working out, religious systems for himself, but because we see in the phenomenon of this universal religious conviction evidence of a primitive revelation, from which all religions, the most corrupt as

well as the purest, have taken their rise. Is there anything contradictory to right reason in this belief? We think not.

If man be naturally a religious being — if such a religious system as deserves the name be accessible to him otherwise than by immediate revelation — he must attain to the knowledge of this highest of all truths by one or other of two processes. Either he is intuitively religious, that is to say, religious by instinct, or he is capable, by the exercise of his reasoning faculties, of becoming religious. That he is not instinctively religious admits of the clearest imaginable proof; for besides that instincts never mislead, they are quite as active in the savage as in the civilised man, and far more perfect. Instinct impels us to seek food, not drink, when we are hungry; to seek drink, not food, when we are thirsty; to avoid danger when we see it; to seek rest when nature is exhausted. If, therefore, instinct were man's guide in matters of religion, it would direct him to the truth with a nicety exactly proportioned to his severance from the counteracting influences of civilised life. Yet solitary individuals are found, and whole tribes exist, who appear to entertain no idea whatever of religion, not even of the simplest

of the truths comprehended under that name — the existence of a God. And the religions of a vast majority of the human race are as far removed from truth as it is possible for human opinion to be. Could such facts present themselves to our notice, if religion were one of man's instincts — if man were instinctively religious?

Neither is it conceivable that, if left entirely to himself, that is to say, without receiving any such impulse as we understand to be implied in the term inspiration, man would have ever sat down to waste a thought upon a subject so abstruse as religion, so entirely apart and distinct from the affairs of the life by which he was surrounded. The best naturalists seem to be agreed in this, that multitudinous as the human race now is, it sprang from a common stock. Now consider how it must have fared with the first pair or with several pairs of human beings suddenly called into existence, and planted by the power which created them amid circumstances the most favourable to the continued maintenance of their existence. What inducements would have been presented to them— what leisure could they have commanded, to aim at objects more sublime than how to provide for the necessities of each returning day? Without

tools, without weapons, without experience of the past, or habits of forethought for the future; where would be to them either the leisure or the motive to indulge in metaphysical speculation? Conscious of their own existence, yet profoundly ignorant of the source whence they came, they are pressed by wants which they see to be common to them and to the inferior animals. Is it conceivable that, during the first generation at least, or indeed during many generations, the feeblest efforts would have been made to interrupt the arrangements necessary for supplying these wants, in order that they might excogitate for moral purposes truths so subtle as are comprehended under the term religion?

But take another view of the question, which, in part at least, is taken by Lord Brougham. Let us assume that religion is necessary to the establishment of human society, that, without it, law would either not obtain at all, or would become the law of mere force, or brute tyranny; that man's moral nature can be worked upon only by the application to it of moral motives, such as are supplied by the appreciation of God's will, and the hope of reward, and the fear of punishment dispensed in a future state by God himself. Is it

reconcileable to our notions of a perfectly wise and benevolent Creator, to suppose that he would leave his rational creatures, for a single generation, uninstructed in points so necessary to the accomplishment of the purposes for which they seem to have been called into being. For never lose sight of the fact, that all man's advances in arts and science are incident to the original formation of society and dependent upon it. The solitary hunter or pair of hunters live, and must die, mere animals of the chase. It is in the tribe that the first movement is made towards the construction of the canoe, and the setting up of the wigwam to shelter its inmates from the weather. But the tribe, the lowest state of human society, could scarcely hold together, could make no advance towards a condition wherein the rights of property are recognised, except by the operation of a principle more influential to regulate the will than human law. What is that principle? Religion.

Again, no fact in history can be better attested than this, that the farther we go back in the annals of the human race, the simpler and purer man's religious belief seems to have been. Take the most ancient record in existence, the scriptures of the Old Testament, and divest them, if you

please, of every incident which is described as miraculous, and you still learn from them that the faith of the patriarchs was as simple as it was sublime; that the object of their worship was the Great First Cause; that he was believed by them to be a spirit; that he was everywhere present, rewarding virtue and punishing vice; that he accepted the worship only of such as worshipped him in spirit and in truth. Nor are we taught a different lesson by the mysteries, or esoteric creeds of ancient Egypt, of Assyria, of China, as far as our opportunities of inquiring into it enable us to speak, or of India. Whence this universal agreement with right reason of the religions of the infant, and, comparatively speaking, barbarous world? Whereas, when we descend the stream of time, we find ourselves conversing with nations highly civilised so far as regards their physical condition, yet in the views which they entertain of this, the most important of all sciences, extravagantly outraging common sense.

It is not difficult, provided we approach the subject with the absence of prejudice which is required in so grave a discussion, to trace the progress of religion from its source, through all the steps which intervene between that point and the

commencement of the Christian era. Communicated in its simplicity to the first pair or pairs, by some process of which we can speak only as inspiration, it would retain its simple character so long only as the tribe descended from this family kept together; and when colonies went forth from the original settlement it would go with them still pure and sublime as their forefathers had received it. But it could not remain in this state. The demands upon the physical energies of the first colonists would be more urgent and more continuous by far, than upon the original pair. The forests had grown dense in the course of years, and wild beasts were multiplied; every day, and every hour in each day, would be occupied in the war against both, and the primitive institution of the Sabbath, or one day of rest in seven, would fall into disuse. Moreover, it is the necessary result of a life of unintermittent physical labour to darken the mind. The spiritual religion of their ancestors would become too sublime for the faculties of the crowd to appreciate; and chiefs and priests, for the purposes of state, would gradually overlay the truth with error. To fix the attention of the rude hunter, emblems or visible representations of the unseen Divinity must be presented to his senses. The sun and the moon

light him to the chase and ripen his corn; the sun and the moon are worshipped first as emblems of the deity, by and by as deities themselves. Fire resembles the sun in certain important respects; it communicates warmth and dispenses light. Fire soon becomes an emblem of the material sun, and as such is worshipped. Probably the next step would be to pass from venerating the memory of deceased benefactors to the worship of those benefactors in connection with the arts which they had practised. That the productive principle in nature came in due time to be embodied is certain; — but this process appears scarcely to have begun among the dwellers in the forest. It was the act of an age intellectually more refined, morally more debased, and it led the way, by a very obvious process, to immorality of the grossest kind. Yet all this and much more— the worship of Baal and Astaroth, of Apis, of Dagon, of Vishnu, the Apotheosis of Zeus, of Athene, of Astarte, of Jupiter, of Neptune, of Pluto, the legends of Acheron, of Styx, of the Elysian Fields, of Cerberus — all these made up only the popular, or exoteric, religions of the multitude. There was at the bottom of the whole a faith at once more simple and more pure, which, because of its simplicity, priest and monarch combined

to keep back; which the philosopher indeed was permitted to study, partly as it was written, partly as tradition had preserved it, but which even he abstained from flinging down for the consideration of the unlettered, because he persuaded himself that its influence would be insufficient to restrain them in obedience to the laws. What was this religion? The reflex of the old revelation, corrupted, indeed, in some of its details, yet so far true to the original, that while it spoke of human souls as passing from body to body it still dealt with them as partaking of the divine nature; though it could point to no higher recompense of virtue bravely maintained here, than the absolute loss of conscious existence by absorption into the divine essence hereafter.

Nor let us be told there is a flaw in our argument, inasmuch as we contend for one revelation only, in circumstances under which, according to our own theory, many revelations would be required. It is not so. We have never contended that the mind of man is unable, by the exercise of its natural faculties, to discover in God's works evidence of God's existence after the great fact had been revealed. We might with equal show of reason assert, that no individual mind is capable of taking in a mathe-

matical truth — say, for example, that the three angles of a triangle are equal to two right angles— unless it be vigorous enough by the exercise of its own faculties, to discover that truth. But between the mental process which leads to the demonstration of a truth once revealed, and the discovery of that truth, there is the widest possible difference. It was necessary to the well-being of human society that true religion should be communicated to the parents of the human race. In the faculties given to man, there was power enough, had it been rightly exercised, to hinder this religion from becoming corrupt, and to satisfy him not only of its truth, but of its perfect adaptation to the circumstances by which he was surrounded.

Here then is the difference between Lord Brougham and ourselves. His Lordship believes that man is naturally religious; that religion is not a thing superinduced upon his nature to elevate and render it more perfect, but inseparable from it; that this natural religion supplies every necessary incitement to virtue, and every needful restraint upon vice, because it teaches that the soul being immaterial, is therefore immortal, and, as a necessary consequence, responsible in a future state for things done and thoughts cherished in this. We, denying

neither the immateriality nor the immortality of the soul, believe also in a future state of rewards and punishments; not because this latter inference follows necessarily upon the admission of the former, but because the fact is affirmed in revelation, and because it is doubly acceptable, being received in connection with the peculiar doctrine of Christianity — the resurrection of the body. Take away from us the conviction of this great truth, and you leave us where Pythagoras and Plato, and Aristotle and Cicero stood, — hoping against the dictates of our more sober judgment, and therefore very little comforted by our hope. For, admitting the mind, or living principle, to be an existence distinct and apart from the body, we are altogether unable to imagine how it would be able to act if severed from the body. Now we see with our eyes, and hear with our ears, we reason, draw conclusions, and remember, and perform every other function both of body and mind with mind and body united; but we are no more able to conceive how all this is to be done by the mind in a state of entire severance from the body than we can imagine how a watch-maker deprived of his tools shall be able to construct a watch. We know, indeed, that the power of making the watch is in the watch-maker's

will, not in the tools; but what his tools are to the watch-maker, our body appears to be to our mind—the box of instruments by which it is able to perform its functions, and without which it could do nothing. Indeed, if in some way or another the physical portion of man be not necessary to the exercise of the power which is inherent altogether in his immaterial portion, why were they ever united?

And this brings us to the close of our argument. In point of fact we accept Lord Brougham's conclusions, though not as evolved necessarily and logically out of the premises to which he refers them. We believe that creation affords a thousand unmistakable marks of the wisdom of the great Creator. We can trace his handiwork in the structure of our own minds as clearly as in the arrangements of physical nature. We feel that only by the assurance of a life to come can the inequalities and moral obliquities of the life that now is be made even; but we lay no more claim, on this account, to the character of discoverers in moral science, than we claim to be discoverers in physical science because we are able to prove that the three angles of a triangle are neither more in quantity nor less than two right angles. The knowledge of these great

ethical facts was communicated to the parents of the human race at their creation. They became clouded with error, by a process which we are perfectly able to trace, and by and by ceased to all practical purposes to be entertained. If it was not unworthy of the Supreme First Cause to enunciate them at the beginning, it was still less unworthy of Infinite Benevolence to renew the enunciation of them when the fulness of time came round. Where are we now? Resting upon our belief in Divine truth as God's scripture makes it known to us; satisfied, indeed, that "he who cometh to God must believe that he is, and that he is the rewarder of them that diligently seek him," but not the less assured, on that account, that, till it come to God by the way which he has marked out for it, the soul of man will find neither limit to its speculations nor rest from its anxiety. Happy then is he who, neither blind to the beauty nor unaffected by the wisdom both of the "Phædo" and the "Tusculan Questions," is content to look elsewhere for the firm confidence of faith which he is unable to derive from either, and, devoting himself in an honest heart to the active duties of life, anticipates with confidence a removal after death into a higher state of existence, not because of any natural right

to immortality inherent in himself, not because both soul and body would not, of their own accord, fall into nothing were the sustaining hand of the Creator withdrawn from them for an instant, but because he has read and accepts the declaration, which announces: "I am the resurrection and the life, he that believeth in me though he were dead yet shall he live, and whosoever liveth and believeth in me shall never die."

MILITARY BRIDGES.*

It must be obvious to the common sense of every thinking man, that an army destitute of bridge equipments, and unskilled in the art of putting them together, is, for all the practical operations of war, well nigh worthless. The infantry may be stout, sufficiently drilled and appointed; the cavalry horses good, and the artillery excellent; but, except for purposes absolutely and locally defensive, nothing whatever can be done with them. No general could move such an army, save along high roads or across open plains and commons; for the first river or canal which crossed the line of his march would interpose an insuperable obstacle to his further progress, and bring him to a stand-still. Accordingly we find that, as soon as nations pass beyond a state of absolute barbarism, they begin to devise means for surmounting this difficulty. The painted warrior is satisfied with his canoe

* Taken from the "Edinburgh Review" for Oct. 1853.

An Essay on the Principles and Construction of Military Bridges and the Passages of Rivers in Military Operations. By General Sir Howard Douglas, Bart., G.C.B., G.C.M. and G., D.C.L. Oxf., F.R.S., &c. &c. Third edition. London: 1853.

or coracle. Carrying nothing with him except his weapons, on which he depends for his supplies in war, as he is accustomed to do for daily food in peace, he paddles over lakes and rivers in search of his enemy, or flees by the same process from him. But, no sooner has his tribe received the first rudiments of civilisation than a different course becomes necessary. War has ceased to be an indulgence of personal revenge or a struggle for the possession of some disputed hunting-ground. The objects sought by it are grander and more lasting. Our chief — now a king — is covetous of political power and extensive territory; neither of which can be achieved except there be order and discipline in his masses. But order and discipline in masses are coincident only with such an extent of organisation as shall enable them when moving to keep together and to act in concert everywhere. The canoe and the coracle do not suffice for this; and if they did, they would still force our king to depend upon chance for the supply of his daily wants. He, therefore, takes to bridge-making; and the accounts which have come down to us of the military operations of the old Egyptians, Persians, Greeks, and Romans, prove that he is not slow in arriving at a tolerable amount of proficiency in the art. Darius laid his pontoons upon the Bosphorus and

the Danube, and so passed them both. Let anybody read with care the account given by Herodotus of the bridges thrown by Xerxes across the Hellespont, and he will be satisfied that there was no lack either of mind or of material in the Persian armies. So, also, we learn from Xenophon that the broad Tigris failed to stay the retreat of the Ten Thousand, because they spanned it with a bridge upon thirty-seven trestles, and marched across. As to Alexander, it is evident, from the statements of Arrian, that he carried to the conquest of India a bridge equipment as complete in every respect as any which at this day follows the track of the best appointed European armies. The passage of the Hydaspes fully settles this point. It was not effected at random, but by means of light vessels which were brought up upon carriages, divided, some of them into two, others into three parts, for the convenience of transport. These he put together on the river's bank, behind the screen of a thick wood, and having launched them, raft-wise — pretty much as our sappers and miners launched their rafts on Virginia Water — he marched his army across. Nor was the case different with the Romans, who seem to have carried this, as they did other branches of the art of war, to a high state of perfection. Cæsar informs us that he was

accustomed to pass the rivers of Gaul on wooden platforms, which were sustained at certain intervals by vessels made of wicker-work, and covered with the skins of beasts. And we need not pause to demonstrate that the pile or trestle bridge which he laid upon the Rhine was as admirable a piece of military mechanism as any upon record.

The establishment of the empire did not, for many a day, affect injuriously either the skill or courage of the Romans. They continued to extend their conquests in all directions; neither the Danube, nor the Euphrates, nor any other river arresting their progress; for they undertook no distant campaign with armies of which the equipment was not in every respect complete. And even when they fought only to keep what had been already won, they did it on scientific principles. The bridge-train of Julian, when he went forth to chastise the Persians, seems to have been excellent. It was the loss of this train which, after the fall of Julian, compelled Jovian to capitulate on the banks of the Tigris to the Persian King Sapor. But a change comes over the vision of our dream after the pride of Rome has been humbled, and her empire overthrown. A new age of barbarism arrives, and with it the neglect of all that has

a tendency to redeem war (considered as an art) from its grossness. There was no more skill in manœuvring men now; no more science in the preparation of means for facilitating the progress of columns from one point to another. Each feudal chief became the leader of a band of outlaws, working his will by sheer strength of hand, and incapable of surmounting any other difficulty than that which the person of a mailed adversary might present. How the leaders of the first Crusade contrived to carry their followers through the east of Europe into the Holy Land we are unable to conceive. But the enormous extent of their losses shows that every requisite to the efficiency of an army was wanting to them. Nor did matters greatly mend, as far as the particular art of which we are now speaking is concerned, for some time after the invention of gunpowder. The artillery first fabricated was of such unwieldy proportions that no bridges, except such as were composed of the most enduring materials, could sustain its weight. Indeed, so recently as the Thirty Years' War, the leaders on both sides were forced, in order to carry their guns across the German rivers, to bring up heavy oaken vessels, from the floorings of which props sprang so strong that they sufficed to

carry massive joists of timber, on which a road was laid. Bridges so formed, besides that they were extremely inconvenient of transport, ran a constant risk of destruction from the accidents of war or climate; for the carrying away of a single barge rendered all the others useless, and the means of repairing so serious a disaster were rarely at hand.

It was about the middle of the seventeenth century that the Dutch, first of modern European nations, began to adapt bateaux, or small vessels, to the formation of military bridges. These they prepared with very considerable skill. The sides were nearly vertical, the bottoms flat, the extremities gradually diminishing in breadth, and terminating at each end in an inclined plane which made an angle of forty-five degrees with the surface of the water. The vessels themselves were not of solid oak, but composed of a frame-work of timber over which a covering of tin was drawn. Hence their great portability, and hence also the application to them of the term "ponton," or "pontoon," a word which has ever since been employed to signify a boat composed of light materials, and built exclusively for military purposes. The invention was so obviously valuable, that it soon attracted the notice of other States. The French

followed the example of the Dutch so early as 1762, and supplied their armies with a regular bridge-train, which has never since been wanting to them. Other nations one by one followed a like course; so that early in the present century there was no army of continental Europe but numbered among its materials of war a bridge equipment. Some covered the frame-works of their pontoons with copper; some adhered to the Dutch model, and preferred tin; the Russians alone overlaid their wicker-work with sackcloth, which they saturated with tar till it became impermeable by water. But it does not appear that then, any more than now, pontoon bridges were considered adequate to all the emergencies of service. Marshal Turenne, for example, though carrying one along with him, was afraid to trust his communications across the Rhine and the Meuse to materials so fragile. He formed his standing bridges out of the common country boats, and found them adequate. Nor can we be surprised at this. The pontoons in use during the war of the Spanish succession were much smaller than those to which we are accustomed; it was therefore necessary, in laying them down, to keep them closer to one another than is done in these days, because the bridge could not otherwise obtain

buoyancy sufficient to support the weight of men, horses, guns and stores passing over; and as the course of the water was thus very much obstructed, the bridge, especially on rivers like the Rhine, ran great risk of being carried away by the current, besides incurring increased hazard of destruction from floating bodies sent down by the enemy from above.

Our next stage in the art of military bridge-making occurs about 1787 or 1788, when a M. Gribeauval, an officer in the French service, brought forward an improved pontoon, which was adopted and called after the name of the inventor. Its length was 36 feet 3 inches, its breadth 6 feet 9 inches, its height 3 feet 9 inches, and it weighed 4079 lbs. avoirdupois. It was of vast capacity and buoyancy; for one such vessel, when used as a ferry-boat, could carry from fifty to sixty armed men across a river. But it suffered under this serious drawback, that its great weight rendered the task of conveying it from place to place difficult and laborious. One of the last occasions on which it seems to have been used was in 1809, when Napoleon supported upon pontoons of this description his bridge across the Danube. Its place has long ago been supplied in the French service by bateaux

in every respect more convenient. We shall have occasion to describe them more in detail by and by; but in the meanwhile our non-professional readers may not be displeased if we preface such description by a few general remarks explanatory of the nature of pontoon bridges in general, and of the manner in which they are prepared for the march, carried in the train of armies, and applied at the proper moment to their proper uses.

A pontoon bridge, then, is a road laid across or upon a river, of which the gangway is composed of planks, and the piers of buoyant vessels, fabricated after some approved model. Its constituent parts are the vessels in question, called pontoons; saddles, balks, chesses, and half-chesses. There are required, to fix and manage it, saddle-lashings, rack-sticks, rack-lashings, breast-lines, outriggers, oars, boat-hooks, buoys, buoy-lines, anchors, cables, body-lashings, carriage-lashings. All these materials are packed and carried about in waggons, so constructed as to receive their respective loads neatly, and to keep them while on the march secure. The numbers of waggons required in the team vary according to the extent of the bridge, and the manner in which its parts are distributed. But whatever the form of these parts may be, and

however different the usages of each particular service in their distribution, they are all subject to one common contingency, — there must be carriages, horses, and men set apart specially for their transport, otherwise their presence will operate as an incumbrance rather than as a convenience to an army.

Of the pontoon — the foundation, so to speak, of the bridge — it may suffice, at this early stage of our inquiry, to say that, whatever be its shape and the material of which it is formed, it is valuable in proportion as it unites in itself the various qualities of buoyancy, lightness, convenience of stowage, steadiness in the water, and applicability to purposes of navigation.

The saddle is a frame of fir timber, which, being placed centrally on the axis of a pontoon, is secured to it by lashings, and receives the ends of the balks.

The balks are small beams of fir, which, rest on the saddles, and are secured in their places by iron bolts. They serve in the bridge the same purpose which joists do in house-building. They extend from one pontoon to another, and support the flooring or platform.

This flooring, or platform, is constructed with

chesses, and half-chesses. The former consist of three fir planks a-piece, bound together in their breadth by four cleats, which fasten underneath; the latter are single planks, which, when the bridge is completed lie over the saddles, and can without difficulty be removed, whenever it becomes necessary to get at the pins or bolts which pass through the balks and keep them in their places.

With respect to the rest of the articles enumerated as belonging to the equipment of a pontoon bridge, their names, we presume, sufficiently set forth the purposes which they are intended to serve. Lashings of every kind, rack or twisting-sticks, anchors, buoys, cables, boat-hooks, — these are implements with which our readers cannot but be familiar. If they desire to know exactly how and under what circumstances each is used, the best thing we can do for them is to advise that they go down to Woolwich or to Chatham the first time a bridge is laid, and watch the process.

Though there are no positive limits to the extent of a pontoon bridge, the best authorities seem to be agreed that it is not desirable to aim at more than a span of 170 or 180 yards. The waggons necessary for the transport of such a bridge are in our service about twenty; in the French service, and in

that of other foreign Powers, the number would be greater or less, according to the shape of the pontoons. But, whatever their numbers, the waggons take a position on the line of march corresponding to the probable exigencies of the service. If the army be advancing, and there are no rivers near, the pontoon train will move in rear of one of the columns. If the army be retreating, it will be pushed on a-head, under a sufficient escort. In the latter case, the duties of the commandant of the train are obvious enough. He marches on till he arrives at the spot indicated for the construction of a bridge. He there lays the bridge down, and, as soon as the rear-guard is across, he gathers in his materials again, packs them up, and sets off at the utmost speed of which his animals are capable. In the former case there is much more to be thought about.

An army on the advance may be assumed to be moving, either against another army which is moving towards it, or in pursuit of an enemy who is seeking to avoid it, and is therefore anxious to throw as many impediments as possible in the way of the pursuer. Whichever idea be taken up, the operations of the pontoniers must remain pretty much the same; for the retreating army will not, it is pro-

bable, leave its own side of the river unguarded, and the army which is prepared to deliver or to accept a battle is sure to watch well against a surprise. Here, then, are the two armies, coming, so to speak, into presence, but with a river between. It is, in every respect, suitable to pontooning purposes; that is to say, it is not too broad, it is not too rapid, there is ample depth of water, the banks are level, and a clear sky, which has canopied both hosts for a week or a fortnight back, assures them against any sudden or violent freshes. One general or the other is eager to strike a blow. He therefore manœuvres so as to distract the attention of the enemy, and he gives orders that at a certain point, and at a certain time, the river shall be bridged. How are these orders executed?

If the ladies and gentlemen who took such a laudable interest in the operations of the Chobham camp are to believe their eyes, nothing can be more easy or more beautiful than the process of pontooning. They saw a number of queer-looking implements — which have been compared, not inaptly, to huge Bologna sausages, collected, they could not tell how or whence, on the margin of Virginia Water. Suddenly, a body of sappers and miners seized upon the sausages, and, conveying them by hand — for

they were wonderfully light—into shallow water, began to construct upon them, with equal rapidity and skill, solid-looking rafts. Two saddles were lashed on each pontoon; balks, measuring about thirteen feet in length, were passed from one saddle to another. Chesses were laid down and made fast under these balks, and away went the raft triumphantly into deep water. Meanwhile a second and a third, constructed in like manner, followed in the same direction, till by and by—with the help of a line previously drawn across (how it got into its position nobody could guess)—the necessary number of rafts were launched, anchored, and made fast at both ends; and lo! the bridge was completed! Forthwith bodies of riflemen dashed across. Then came columns of foot and of horse, and by and by guns. The bridge rocked and swayed terribly. Some of the horses shyed—some fell into the water. But on the occasion to which we now particularly refer no life was lost of man or beast; the whole got across. Things did not go quite so smoothly at the attack on Runnymede. A gun slipped from the bridge, dragging its team and a dozen men along with it. But the catastrophe made no very deep impression. All the gunners were fished out, and of the artillery horses only two were drowned.

The spectators went away convinced that, with such a train, and such men to lay it, a British army could go anywhere, and do anything.

We confess that, though much grieving for the fate of these two noble animals, we were not upon the whole sorry that the accident occurred. It tested the capacity of a set of pontoons, which, on what authority we are unable to say, have superseded all others in the English service; and we are bound to declare that, according to our poor judgment, it condemned them utterly. The river was as smooth as a mill-pond. The fastenings of the bridge were perfect. Yet, no sooner was the platform loaded, than there occurred such a succession of violent gyrations, as no horse in high condition could be expected to endure. It seemed, too, that a very slight additional weight would have torn the balks from their places; for every pontoon in its turn became so much immersed that the pressure of a few pounds more must have sunk it altogether. Now this is not the condition to which any pontoon bridge ought to be reduced by the passage of a 9-pounder. Let us see to what the defect is to be attributed.

We have elsewhere observed, that pontoons become more or less valuable in proportion as they

unite in themselves the qualities of buoyancy, steadiness in the water, aptitude to purposes of navigation and facility of transport. Forty or fifty years ago the pontoons in our service possessed all these qualities except the last, though none perhaps to the full extent that is attainable. They were very heavy, and in shape resembled large river punts. They consisted of solid frames of wood covered with sheets of copper; and each weighed, with its appurtenances and the carriage used to transport it, 35 cwt. They were, like other punts, undecked, and therefore liable, of course, to be filled should a turbulent stream break violently over them, or the strain on their buoyancy prove excessive; and when such an accident occurred to more than one or two in the whole length of the bridge, there was no possibility of repairing the damage except by breaking up the bridge entirely. This last defect, though a grave one, was attributable, be it observed, rather to the system of management than to the principle on which the pontoon was constructed. It showed that we had not then arrived at such skill in mechanics as could enable us to meet all emergencies; it furnished no proof that the form of the pontoon was radically defective. And with respect to the hazard of sub-

mersion, that is a risk from which no open pontoon bridge can be rendered absolutely free, though a skilful adaptation of pump machinery may greatly modify it. We acknowledge, however, that the pontoons which we are now describing laboured under some disqualifications. They were unnecessarily cumbrous in transport and difficult to handle in the water; but to compensate for this they proved marvellously steady when laid down. The undulations visible in them during the passage of men, horses, and carriages were next to nothing.

There was a natural desire in many quarters to improve upon these pontoons; and in 1814 Colonel Sir James Colleton produced vessels cylindrical in shape and having long conical ends wherewith to cast off the water in its descent. As they were made up of wooden staves put together like the staves of a cask and girt about with iron hoops, they got the name of buoy pontoons, which continued to be applied to them after their inventor had substituted copper for timber except in the framework. From some imperfection in the manner of arranging them in the water, they were not found to answer; and Sir Charles Pasley, then a colonel of engineers, took the subject up. He brought forward a pontoon shaped like a boat, with a deck and two prows, of

which the frame consisted of wood, and the exterior covering of sheet copper. For the sake of portability, he so constructed his boat that it could be divided transversely into equal parts, which, by means of lashings, were brought together at the water's edge, and became an entire and water-tight vessel. We believe that Sir Charles Pasley's pontoons are still used by the army of the East India Company; at home they have given place to the Bologna sausages already referred to, of which Colonel Blanchard, of the Royal Engineers, has the merit of being the inventor. These are composed entirely of tin, though copper would do quite as well, except for the circumstance that it is much more costly. We must describe one.

There are two kinds of pontoons in the arsenal at Woolwich — one intended for the general use of an army, the other supposed to be available for an advanced guard, or a flying corps which shall consist only of infantry, and the lightest species of field gun. Both are constructed on the same principle. They consist of sheets of tin—of the quality known in trade as xxx — which are wound round a series of light tin wheels, of which the spokes are tin tubes measuring one inch in diameter. Through these wheels, and extending from one extremity of

the pontoon to the other, runs a general axis, namely, a long hollow tin tube, having a diameter of $1\frac{3}{4}$ inches. The pontoons, whether large or small, are cylinders with paraboidal ends. They measure, respectively, the larger pontoon 24 feet 6 inches in length, including the paraboidal ends, by 2 feet 8 inches in diameter; the smaller, 14 feet 10 inches, by 1 foot 7 inches in diameter. Vessels constructed on this principle and of these materials, cannot be otherwise than buoyant. The larger pontoon, when placed in the water, without superstructure of any sort, sinks to the depth of $4\frac{1}{2}$ inches; the smaller, dealt with in the same way, sinks about $2\frac{3}{4}$ inches only. But taken singly they are alike useless; for such is the unsteadiness of all floating substances of which the shape is cylindrical or globular, that the smallest weight imposed upon its upper face causes it immediately to topple over. The pontoons adopted by us, therefore, are never launched except by pairs; in other words, the first thing done on reaching the bank of the river, is to construct a series of rafts, which one after another are sheered out into deep water. A word or two on this part of the subject is necessary to a right understanding of all that is to follow.

We have spoken above about the method by which pontoon bridges are made to accompany armies on their marches. Other Powers, for reasons hereafter to be stated, convey one pontoon, complete in its appurtenances, upon one waggon. We so construct our waggons, or are supposed so to construct them, as that each shall carry two pontoons, with all other things necessary for the completion of a raft. There thus go together: —

Pontoons	2	Outriggers	2
Saddles	2	Oars	7
Balks	12	Boat-hook	1
Chesses	10	Buoy	1
Half-chesses	4	Buoy-line	1
Saddle-lashings	4	Anchor	1
Rack-sticks	8	Cable	1
Rack-lashings	8	Body-lashings	3
Breast-lines	2	Carriage-lashings	4

The order of packing is this. First come the balks, arranged on the bottom of the carriage, in the centre of bolsters which are cut to receive them, and with which, when all are in their proper places, the tops of the balks become level. Above the balks are piled the chesses, above the chesses the saddles; the cable is coiled and stowed between the saddles. Upon the saddles rest the pontoons; the space between the under sides of the pontoons,

and just above the cable, is filled up by the oars. Webbed girths are then passed over the pontoons, which being fastened down to the carriage keep the load steady. Meanwhile, all the working articles, such as rack-sticks, rack-lashings, &c. are stowed away in the carriage box; and, finally, the anchor and buoy are securely fastened to the perch.

The order of unpacking is, of course, an exact opposite to the above. As soon as the waggon reaches the point beyond which it is deemed inexpedient to drive it, the party in charge proceeds to unship the various articles that are piled in and about it. All are numbered—each set has its appointed men to lift it—and everything is thus brought rapidly and without confusion into a working state. The pontoons, which are provided with four rows of sunken handles a-piece, at intervals of 2 feet 1 inch round the circumference, are conveyed by hand to the water's edge. Two saddles are lashed to each; the balks are fastened upon the saddles; the chesses cleated down to the balks; the oars, boat-hook, anchor, buoy, rack-sticks, and lashings of every description shipped, and we have a raft complete. There is now something available to manage: what are its capabilities?

Two of our larger pontoons formed into a raft,

sink immediately to the depth of $7\frac{1}{3}$ inches. Two small pontoons similarly managed sink $4\frac{1}{2}$ inches. Their weights appear to be—that of the large raft, 2495 lbs.; that of the smaller, $513\frac{1}{4}$ lbs. This lays upon each pontoon, including its own weight, a burden of $1247\frac{1}{2}$ lbs. in the former case, and $256\frac{5}{8}$ lbs. in the latter. But when the rafts are united so as to form a bridge, each pontoon has to support the weight of half the superstructure on either side of it; in other words, the large pontoon then carries, 1847 lbs., the small, 314 lbs. The immersion is, consequently, carried to $9\frac{1}{2}$ and $5\frac{1}{4}$ inches respectively, before any other substance than the materials required to complete the bridge rest upon the pontoons. But the water displaced by the large pontoon when wholly immersed, is, as near as possible, 7675 lbs. Take away the weight of the pontoon with that of the superstructure which rests upon it, namely, 1847 lbs. from this amount, and you have an available buoyancy of not more than 5428 lbs.

Pontoons of the larger sort are usually laid at intervals of thirteen feet from centre to centre. But we must allow Sir Howard Douglas to carry forward the argument.

"The water displaced," he says, "by one of Colonel Blan-

chard's large pontoons, when wholly immersed, being 7,675 lbs., and the weight of one pontoon, with the part of the superstructure which rests upon it, being 1,847 lbs., there remain 5,428 lbs., which may be placed on the bridge within the extent which is supported on one pontoon (half a bay on each side), that is 13 ft. when the pontoons are placed at the usual open order, or 13 ft. from centre to centre. Then, assuming that a man in marching order weighs 180 lbs., it follows that 32 men, or 8 ranks marching on a front of 4 men, are all that should be allowed for to every 13 ft. in the length of the bridge; and with this number the upper surfaces of the pontoons will be on a level with the surface of the water.

"In passing a pontoon bridge cavalry can only march by double files, and as each horse takes up about 9 ft. in length, 4 horses could scarcely stand within the space which rests on one pontoon. Now, estimating the weight of a horse at 9 cwt. or 1,008 lbs., and that of the soldier, with his arms, baggage, and appurtenances, at 308 lbs., the weight of four horses with their riders, will be 5,264 lbs.; to this adding 1,847 lbs., for the pontoon and superstructure, the weight is 7,111 lbs. In the table it will be seen that this weight would sink a pontoon to the depth of 26½ inches!

"The weight of a 9-pounder gun with its carriage and limber is 4,159 lbs., and this weight is supported on the bearing points of the four wheels. Now, supposing the axles of the wheels of the gun and limber to be 9 ft. asunder, while the centre of gravity is about 1 foot from the axle of the gun-wheels towards the limber, it follows that 3,697 lbs are supported by the wheels of the gun-carriage. Then, when the wheels are over a pontoon, that pontoon will have to support, including its own weight and that of the superstructure, 5,544 lbs.; and from the table it appears that the pontoon would be immersed about 21⅓ inches, while the gun is passing over it."

It appears from this description, first, that for purposes of navigation, Colonel Blanchard's pontoons are of very little value, because nobody, we presume, will contend, that it is possible to row a raft, no matter of what materials composed, with its square front and broad surface, rapidly across a stream; and next, that in point of buoyancy it barely suffices to sustain the weight of 32 infantry, 4 armed horsemen, or one 9-pounder gun *in transitu.* It is manifest, also, that its capability of sustaining even this burden depends entirely upon the good order that is preserved in the column while it passes. The smallest pressure of the rear ranks on the front,—the slightest undue acceleration of pace in the cavalry or artillery,—neglect on the part of the infantry to omit keeping step,—any one of these accidents, which in the hurry of actual warfare is not unlikely to occur, may be attended with fatal consequences. And even under the most favourable circumstances, we appeal to all who witnessed the passage of the Thames, and its results, whether the general unsteadiness of the bridge was not excessive.

But perhaps in their extraordinary facility of transport Colonel Blanchard's pontoons present a feature, which more than compensates for their

shortcomings in every other respect. We are afraid not. Unquestionably a tin cylinder measuring 24ft. 6in. in length, with a diameter of only 2ft. 8in., is more portable, with the hand, than any trapezoidal or boat-shaped vessel which it would be possible to apply to pontooning purposes. The largest of Colonel Blanchard's pontoons weighs only 565 lbs., whereas the vessel used for similar purposes in the French army weighs upwards of 1,600 lbs. But the question assumes another shape when we come to consider their relative capabilities of package, and consequently of conveyance from one place to another. With a trapezoidal or boat-shaped pontoon, the whole of the interior space is available. Whether on board of ship or in a waggon, all the materials necessary for converting it into a half-raft may be stowed between the gunwales. With a cylinder, the interior space is lost, and the pontoon itself, as well because of its delicacy as of its conformation, must have ample room in the stowage. We suspect, therefore, that when the experiment comes to be fairly tried, it will be found that our lighter vessels render necessary for their transport more tonnage on ship-board, and a greater strength of waggons on shore, than any other bridge train in the world. But this is not all: our cylin-

drical pontoons have never yet been used in the presence of an enemy vigilant in watching his own side of the river, and determined to keep it. Are they fit for such work? We will take the liberty of describing not the parade passage of Virginia Water or the Thames, but the method which is actually adopted when armies meet to fight and not to play; and then, perhaps, our readers will be able to draw for themselves a tolerably correct conclusion on that subject.

We defy any engineer in the world to lay a pontoon-bridge in the presence of an enemy who is master of the opposite bank of a river and has any shelter at all of wood or broken ground to cover him. Before a single raft is constructed, far more launched, light troops must have made good their passage to the other side, and woods and rocks will probably be ringing with the sharp echoes of their skirmishing fire. Now, there is no method of putting light troops across a deep river except one: they must be ferried over; and in order to accomplish this, we must have at our disposal vessels a great deal more ship-shape than either tin cylinders or rafts measuring 13 feet by 8 or 9. Our cylindrical bridge equipment, however, either does not provide such vessels at all, or it contemplates a

supplemental train of common row-boats which has not yet been shown to an inquiring public, and which will of course demand a considerable augmentation of waggons, horses, and drivers to convey it. The French manage things differently. After repeated experiments they have come to the conclusion, that, all points considered, there is no pontoon so available for the varied purposes of a campaign as the flat-bottomed open vessel, which was adopted into their service in 1829. They argue that it is not wise to depend, for your first step in bridge-making, either upon the chances of finding country boats when you want them, or on a supply which must of necessity be limited if it be regarded as supplemental only. They have, therefore, determined that no pontoons shall accompany their armies which do not fulfil the following conditions:—1st. Their capacity and solidity must be such as that a bridge formed of them may be able to support the greatest weights which usually accompany armies, and that the weight of the bateau be as slight as is consistent with this condition. 2nd. They must answer as well as row-boats in case it should be necessary to use the bateaux as such in passing rivers by main force, or in establishing lodgments. 3rd. Their form and

dimensions must be such as to admit of their being easily mounted on carriages and transported without difficulty from place to place.

We are inclined to think that our neighbours argue on good ground: we are sure that, if the grounds of their argument be admitted, their method of acting up to it is excellent. A French pontoon is made entirely of wood; the framework is of oak; the bottom and sides are covered with fir-planks. It is flat-bottomed. The sides are nearly vertical; the breadth diminishes towards the head and stern, —though the latter is wider than the former. The two ends or prows, which rise above the level of the tops of the gunwales, are curved like those of a canoe. In length the vessel measures 31 feet; the breadth of the body at the top is 5 feet 7 inches, at the bottom, 4 feet 4 inches; the breadth of the upper extremity of the front prow is 2 feet 5 inches, of the after prow, 4 feet 7 inches; the height of the body is 2 feet 6½ inches. Such a vessel may obviously be applied to every purpose in effecting the passage of a river; it is especially useful in the attainment of that without which all other attempts can hardly fail to miscarry.

When the passage of a river is to be made good, either by open violence or by stratagem, the pon-

toon-train halts behind some screen, as near as may be convenient to the bank of the river. One or more boats are immediately launched from the bank, full of armed men. These take on board with them a light line, coiled—the further end of which is made fast to a stout hawser—and instantly push off. If a picket of the enemy be posted on the opposite bank, a rattling musketry fire salutes them. This they disregard; though it will be answered, of course, from the bank which they are leaving, provided the river be not too wide. But there is no firing from the boats. Stoutly the rowers ply their oars. Nobody speaks a word. It is for life or death that men are pulling, and their strokes are given regularly and heavily. They reach the bank, spring on shore with their muskets in their hands, and dash into the underwood. Some engage forthwith in the skirmish. The rest haul in the line till the end of the hawser comes home, which they make fast to the nearest tree. Now, then, a flying bridge is established; and backwards and forwards, to the tune of a sharp skirmish, the ferry-boat passes. Meanwhile, the pontoniers arrange their vessels on the further side, in agreement with the instructions which have been given to them. The French station theirs, fully laden, and at regular distances from one

another, up the course of the river. At a given signal all push out, and sweep consecutively round, like a battalion changing its front. Number one, to be sure, stands fast. It is in its proper place already, with its gear on board and its stern to the stream. It is in a state also for giving and receiving balks and chesses with number two, as soon as number two shall have wheeled into its station. Number three succeeds, then number four, and so on,—each shooting out its balks to those on either flank of it, and receiving and making fast balks delivered by them in return. In half the time that is required for preparing, launching, connecting and sheering off our cylinders and rafts, this bridge of bateaux is complete. For every bateau steers upon the allignment of the hawser, and each, while doing so, drops its anchor in sufficient time for the crew to pull up exactly where it is intended that the boat should remain.

Compare this with the process which cannot be dispensed with in our service.

We assume that, by means of row-boats, provided expressly for the purpose, our people have made their lodgment on the enemy's bank. They fix their hawser and establish a flying bridge. What follows? While reinforcements are carried over to this forlorn

hope by driblets, their friends on the far bank apply themselves diligently to construct a dozen rafts and to sheer them off in succession. It took full twenty minutes to complete and connect that number in Virginia Water the other day. The process is not likely to be accelerated if a brave and active enemy, alarmed by the sound of firing, hastens to support his pickets with artillery, as well as with infantry. Now in operations of this sort time is everything. A hundred, sixty, even fifty brave men will hold their ground against any odds for five or six minutes. But if these five or six minutes be prolonged to fifteen or twenty, or more, their resistance will be overpowered. Nor must it be forgotten that no use whatever can be made of the pontoons till they are constructed into rafts, and the rafts lashed together. Wherefore, unless our train be most inconveniently large, it is impossible that we can have at our disposal more than three or four small row-boats at the utmost. We may succeed, with these, in landing perhaps fifty men on the enemy's bank. But we cannot, by rowing, carry more. Our floating bridge will not carry above twenty at a trip; the enemy, on the other hand, get up their reinforcements by battalions. What can the valour and devotion of sixty or eighty men do, to protract the fight till the

tedious process of sheering off rafts is completed? Observe how differently a French officer is circumstanced in every respect. If he see reason to anticipate a warm resistance at first, he has the means at his disposal of launching a flotilla capable of transporting from three to five hundred men at a trip. And the movement will scarcely retard the construction of his bridge at all, because his boats become pontoons by mere change of position, as soon as they discharge their living cargoes.

Again, the French bridge, when laid, is in every respect stronger, safer, and more easily protected than ours. It is more easily protected, because the piers of a French bridge lie 19 feet 8 inches apart, whereas ours are separated by 13 feet only. And many a destructive substance will glide harmless through an opening of 19 feet, for which 13 would be too narrow. It is safer, first, because, in respect to buoyancy, it carries more than twice the weight which ours can sustain; next, because the gangway is wider. And it is stronger, for this among other reasons, that its superior solidity prevents that excessive heaving up and down which is perceptible in our bridges, and which necessarily occasions a severe strain on the balks and their fastenings. Finally, should it happen that both pontoons are sunk so far

in a shallow river, as not only to touch the bottom, butto press upon it, the bateau, strong in its oaken framework, will take no hurt, whereas the tin cylinder is crushed to pieces and destroyed. Wherein, then, lies the superiority, if such there be, of the cylinder over the trapezoidal-shaped vessel? In its positive lightness, and consequent portability? This does not necessarily follow; for, as has elsewhere been explained, what the cylinder gains in positive lightness, it loses in difficulty of stowage. And when we further consider that each bateau suffices to span 19 feet of water, whereas the utmost stretch of a cylinder is across 13 feet, the greater number required of this latter vessel, though it may not quite reach the standard of the other, will bring the burden on each side nearer to an equality than may at first sight appear. Besides,

"It is essential to the stability of floating bodies," says Sir Howard, "that their bearing should increase with the increase of their immersion vertically: that is, their horizontal sections should expand up to the plane of floatation, or horizontal surface of the fluid in which the vessel floats. In cylindrical vessels this only takes place up to the immersion of their horizontal diameter, after which—that is, after they are half immersed — the section coinciding with the plane of floatation diminishes; and the nearer the vessel approaches to entire immersion, its descent in the water becomes greater and greater with every equal augmentation of load; that is just the reverse

of what it should be. The bearing of a vessel of trapezoidal or boat-like shape, increases up to the extreme power of floatation; and this has ever been considered the grand desideratum in determining the configuration, and providing for the stability, of floating bodies."

But the French pontoons are open; ours are inclosed. A sudden fresh, an extra pressure upon the platform, may fill some or the whole of the former with water; and then what will become of the bridge? whereas ours can suffer, at the worst, no more than a momentary immersion — it never can be water-logged. Withdraw the cause, and it rights itself immediately.

Perhaps so; but observe what the difference is between the floatation powers of the two bridges. A pressure of 7,675 pounds avoirdupoise will sink a bridge supported on cylindrical pontoons entirely; a bridge supported upon such bateaux as are used in the French service is sunk to the tops of the gunwales only after 18,674½ pounds have been imposed upon it. Both are useless so long as they are under water. But besides that the French bridge can successfully resist twice as much pressure as our own, the pump-machinery carried about with it must be much more defective than we take it to be if against freshes, whether sudden or anticipated,

it fail to provide a sufficient remedy. For these reasons, and for many more which we cannot find space or time to enumerate, it really does appear to us, that in adopting Colonel Blanchard's pontoon to the exclusion of all others, the military authorities of this country have acted somewhat rashly. We do not say that Colonel Blanchard's pontoon is not a very excellent vessel of its kind; it may perhaps turn out, after all, to deserve the place of merit which has been assigned to it; but as yet we are far from being satisfied of the fact, and we know that our neighbours on the farther side of the Channel deny it to be a fact at all. So, at least, we gather from the observations of Marshal Vaillant, himself an officer of great merit and experience, and brought up especially in this branch of the service.

"Les plus grands inconvénients," he says, "des "pontons cylindriques nous paraissent être d'exiger "de longues voitures pour leur transport, et de ne "pas pouvoir les conduire à la rame; ce qui ne "permet pas non plus de les employer comme les "pontons ordinaires ou les bateaux, pour faire "passer brusquement quelque corps d'infanterie "d'un bord d'une rivière à l'autre. Dans les pays "où les transports par voitures sont très-difficiles et

"où l'on ne peut espérer de rencontrer des bateaux "ou d'autres moyens de passage, il est indispen- "sable de mener avec soi le matériel nécessaire à "l'établissement de quelques ponts; mais en pareil "cas, ce qu'il y a de mieux à faire c'est de trans- "porter à dos de mulet quelques chevalets légers "ou des caisses. * * * Toutes les "fois qu'on pourra se servir de voitures nous "croyons qu'au lieu de les employer au transport "de pontons cylindriques, il sera préférable de leur "faire porter quelques pontons ordinaires ou quel- "ques bateaux."

The criticism of an able writer in "Le Guide du Pontonier," is not less decisive:—"Le pont de "tonneaux Anglais nous paraît donc être une in- "vention assez ingénieux mais sans utilité. Préfé- "rons à ces radeaux composés les bateaux légers "que franchiront avec rapidité les plus grands "fleuves et braveront sous les ponts les efforts des "courans les plus violens."

Before passing on to another part of our subject, we think it right to mention, that some time ago an idea was entertained that pontoons, made with a preparation of caoutchouc or Indian rubber, might be advantageously introduced into our service. We believe that such pontoons are the

invention of an officer of engineers in the service of the United States of America; at least we do not remember to have heard of them till 1836, when Captain, now Colonel Lane, of the United States army, threw an experimental bridge across a river in Alabama, which measured 350 feet in length, and was supported upon sixteen such pontoons. The pontoons, it appears, were made of strong canvas, coated with caoutchouc. But by whomsoever invented, the Americans still profess to think highly of them. In 1839, a Board of Officers assembled at New York to observe and report upon certain experiments which a Mr. Armstrong undertook to conduct; and it must be admitted that the results, as far as the Board has described them, were satisfactory. Mr. Armstrong, it seems, formed his floating piers out of three cylinders respectively, each cylinder being composed of two layers of strong canvas, saturated with caoutchouc, and thereby rendered impervious to water. The cylinders were 18 feet long, and, when inflated, 18 inches in diameter; a slip of the same material held them together, and their united weight was only 117 lbs. One of these piers, without a platform, supported fifteen men, and was rowed about with perfect ease; two, placed side by side, and

provided with a platform, 18 feet long, and 9 feet wide, carried a 6-pounder on a field-carriage unlimbered, and with fifty men surrounding the gun, was moved without difficulty in the water. When two men only remained on the raft, the gun was repeatedly fired, with and without shot, yet no derangement whatever occurred in the apparatus. The extreme portability of vessels so composed, will at once occur to the mind of the uninitiated as an argument in their favour. And it is not without plausibility; for the three cylinders here spoken of, when folded for the purpose of removal, were all packed in a single box, measuring 3 feet in length, 18 inches in breadth, and 2 feet in depth. But, shape them as you will, pontoons made of Indian rubber or any other frayable substance, lie open to objections which cannot be got rid of. The slightest friction on gravel, or any other rough substance, must be fatal to them; for the moment they cease to be air-tight, they cease to be valuable. We believe that the only British officer of note on whom they made a lasting impression, was Sir Harry Smith. But, though he carried some of them with him to the Cape of Good Hope, on the occasion of his assumption of the Government there, we never heard that he found them of

use, except as the framework of a raft. He certainly did not try to construct bridges with them; and we are not of opinion that any body else will seriously think of resorting to them, for keeping open his communications or facilitating the advance of his columns in a campaign.

We now approach another matter intimately connected with the discussion into which Sir Howard Douglas has led us, on which there can, we should think, be no difference of opinion. At whatever conclusions we may arrive in regard to the comparative merits of cylindrical and trapezoidal pontoons, we must all, as it appears to us, be agreed in the judgment to be passed on the actual condition of the bridge-train now in the English service. In point of fact it has no existence. We possess a few pontoons, no doubt, with balks, chesses, &c. sufficient to throw a bridge over a narrow piece of water, and the labour of a few days would give us as many more as we can require. But there are neither carriages in which to pack these pontoons, nor horses to draw such carriages, nor men instructed to look after both horses and carriages, to guide them on their march, and apply the contents of the latter to their proper uses at the proper time. The materials of the bridge which so much

delighted ladies and gentlemen, first at Virginia Water, and next upon the Thames, were brought up from Woolwich in common country carts, to which the Artillery lent both horses and drivers. The first relay dragged them on as far, we believe, as Staines; the second, supplied by the batteries in camp, met the train there, and transported it to the water side. And when the bridge arrived, it was Sappers and Miners, under the direction of officers of the Royal Engineers, who converted pontoons into rafts, and laid them down for the troops to pass over.

Now we put it to the common sense of every man not a member of the Peace Society, whether this is a state of things which ought to be. It is admitted that there is no making war — to any good purpose, whether offensively or defensively — without ready means of passing rivers in advance and in retreat. It is equally certain that your operations will lead to no satisfactory results if at the critical moment it be necessary to withdraw the horses from your guns, and men, instructed to become directors in the fortification of your position, be called away to discharge duties entirely extraneous to the objects for which they were enlisted. Yet to these shifts we are driven even in a camp of instruction. We have no waggons, no horses,

no drivers appointed to take care of our bridge-train; and of trained pontoniers we are wholly destitute. Let us not be misunderstood in regard to the latter point. The Sappers and Miners, directed by officers of Engineers, laid the bridges on Virginia Water and the Thames admirably. This did not surprise us, for we honestly believe that there is no sort of work, above ground or below — on the land or in the water, which our Engineer officers, with their noble Sappers near them, will not manage, somehow or another, to execute, if it be required at their hands. And we are further satisfied, that it is a wise thing to instruct them in all the details of military bridge-making, of which, indeed, no officer, either of the infantry or of the cavalry, ought in our opinion to be quite ignorant. But it is because we think thus highly of them, because we know their value, and have a true perception of the duties, important and multifarious, which they will be called upon to discharge in war, that we protest against laying upon them the additional responsibility which our present system or absence of system has created. We want what all other countries have — a corps of pontoniers, with horses, carriages, and equipments of every sort complete; and we miss them the more

that we once had a body of military artificers fully equal to any demand that could be made upon them, under the designation of the Staff Corps. Why was that useful corps disbanded? Their services during the war in the Peninsula and South of France will never be forgotten; it was a mistaken economy — long resisted, we believe, by the late illustrious Commander-in-Chief — which got rid of them. We have heard that a Committee of Ordnance officers has been directed to inquire into this important matter, and report upon it. We trust that the rumour is well founded; and we further hope that when the Board meets, Sir Howard Douglas, among others, will be invited to give an opinion as to what is really wanted to render our bridge equipments available. Meanwhile, we learn from his valuable work, that the establishment of the Pontonier Corps in the service of France, as it was settled by the ordonnance of 5th August, 1829, is for war, 1587 men and 140 horses, and for peace, 918 men.

Pontoon-trains are without doubt essential to the efficiency of armies. It will not do, however, to trust to them exclusively: because, in the first place, all rivers do not admit of being bridged by pontoons, and, in the next place, pontoon bridges

ought never to be used as permanent roads of communication. For the same reasons the drill of pontoniers is quite inadequate if it enable them to lay pontoon-bridges and none others. Broad rivers, of which the stream is very rapid, such as the Danube below Pesth, the Rhine opposite Cologne, the Mississippi near New Orleans, do not admit of pontoon-bridges. The same thing may be said of tidal rivers, when the rise and fall is great. Precipitous banks, rocky and uneven channels, peculiar liability to freshes, present insuperable obstacles to the operation. Neither is it possible to provide for large armies a pontoon-train sufficiently extensive to meet all the possible exigencies of a campaign. A general may find it necessary to move upon three or four lines simultaneously; he may be headed upon all or most of them by deep rivers. It would require a more extensive equipment than is compatible with the efficiency of an army in other respects to place at his disposal pontoons enough for bridging the whole of them. A general may be compelled at once to form a siege and to cover it with a field force which must have everything complete within itself. If the besieged place lie upon a river, the river must be bridged, without, however, crippling the field force by depriving it of

its bridge equipment; and finally, between the army and its base of operations several lines of rivers may lie, over each of which one or more bridges must be thrown, provided there be no standing bridges, or that these have been broken down. How are these exigencies provided for?

The various expedients to which the leaders of armies are driven when either or all of the contingencies here enumerated encounter them, may be classed under five heads. They can meet their difficulties, 1st, with bridges of boats and bateaux; 2nd, with flying bridges; 3rd, with bridges laid on rafts of timber, on casks, or air-tight cases or inflated skins; 4th, with bridges on trestles or piles and on carriages; and 5th and last, with trussed or with suspension bridges. It would require far more space than is at our disposal to describe, even in the most perfunctory manner, the process of construction which goes on in each of these cases; but a few words explanatory of the general purposes which they are respectively intended to serve may not be amiss, and it may be well to illustrate our statements by examples.

When a river is very broad and the current is rapid, or when the tidal movement is strong, a bridge of boats or of bateaux is always to be laid.

The pontoons adopted in the French army may, indeed, be applied where our pontoons could not show themselves; but even the French, rather than trust to roads resting on field pontoons, would prefer spanning such a width as the Rhine at Cologne with vessels adapted to the ordinary commercial purposes of the country. Moreover the French keep in their arsenals large bateaux, which are intended to be brought into use on such occasions. These measure in length 35 feet; they are $6\frac{1}{2}$ feet wide above, $4\frac{1}{2}$ feet below. They weigh 5250 pounds, and are formed with pinks head and stern. It was by these means, and by pressing into the service as many barges as he required, that Moreau, in the campaign of 1800, passed the Rhine in the face of an Austrian army from a point a little below Stein and opposite to the plain of Bebern. The circumstances were these:

Having determined to advance through Suabia by the right bank of the Danube, Moreau, notwithstanding that the Rhine was bridged at Basle, Brisach, and Kohl, manœuvred to throw a strong corps across that river near Lake Constance, and to turn thereby the Austrian positions between the Rhine and the Danube. His preparations were of the usual kind; that is to say, he made demon-

strations with pontoons here and there, while the larger convoy, consisting, besides row-boats, of thirty-six bateaux d'arsenal from Strasbourg, and thirty country boats, moved stealthily towards the real point of action. This had been previously reconnoitred, and all its features calculated by General Didon; and on the 30th of March all was ready. At ten o'clock the same night row-boats enough to transport 900 men arrived within 600 yards of the bank. The waggons halted there; for the ground was high, and the descent towards the water rough and precipitous. But the boats, being lifted by hand, were carried down the declivity, and ranged in two divisions in the water, and the pontoniers lay down behind them.

Night operations are proverbially insecure. There was delay in bringing forward the troops told off for the first passage, and dawn coming on made apparent to the Austrians the peril to which they were exposed. A fire of musketry was immediately opened upon the boats, which extended in a few minutes along the whole line. The pontoniers saw that concealment was no longer to be thought of. They launched the boats. The French advanced guard came down, and, taking them on board, the boats pushed off. In spite of a stout

resistance they made good their landing; and, covered by a heavy fire of artillery from the high grounds, of which the French were in possession, they soon effected a lodgment. Other boat-loads of troops followed; while the second division of pontoniers hastened to bridge the water, and the bridge took its place exactly where it was intended to be. Before nine o'clock on the morning of the 31st, the entire corps, consisting of three divisions, with a reserve of cavalry, was formed on the right bank of the Rhine.

But perhaps the most memorable case of bridging a wide river with boats which has occurred in modern warfare, took place under the surveillance of our own illustrious Duke of Wellington. His bridge across the Adour met every one of the emergencies to which armies operating in front of broad or tidal rivers are liable. We shall allow Sir Howard Douglas to describe that remarkable structure, as well as to explain the difficulties of the enterprise.

"In large tidal rivers, subject to heavy swells, it is very difficult to construct a bridge with a degree of flexibility suited to the motion of boats in such rivers, and to allow for the rise and fall of the tide. For rivers 600 or 700 feet wide it is often necessary to use very large boats, lighters or barges, or even

vessels of such tonnage as to admit of intervals so large as to make it difficult to get timber sufficient to span them.*

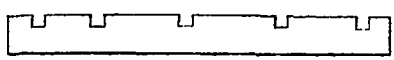
"The construction of a bridge across the Adour in 1814, presented these difficulties; when, upon the suggestion of Lieut.-Colonel Sturgeon, of the Staff Corps, assisted by Major Todd and other able men, the Duke of Wellington determined to use, instead of balks, cables stretched from bank to bank by tackles and capstans, and resting on the decks of vessels moored at the distance of 40 feet from centre to centre. Besides the other advantages of this expedient, it was justly considered that, in the event of the boom constructed above the bridge to protect it from the enemy's fire vessels being broken, the cables supporting the floor of the bridge might serve to protect the store-ships at anchor below.

"In communication with a powerful squadron on the coast, his Grace arranged the construction of the bridge before any of our shipping entered the Adour.

"Forty-eight chasse-marées † were taken up in the ports of St. Jean de Luz, Socoa, and Passages: these were collected at Socoa, and each was loaded with

48 three-inch planks, 9 inches wide and 12 ft. long.

1 sleeper, 10 inches square, and notched thus:



2 hand-saws; 2 axes; and 2 skeins of hamber line, to lash the planks to the outside cables.

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* "With ample means, it is astonishing to what extent these floating bridges may be carried. Amongst the bridges of the greatest celebrity, may be named that which was established across the Dnieper in 1739. Although the river had overflowed and inundated two leagues of country, the Russians constructed a bridge of boats across the whole breadth." (*Handbuch der Pontonnier Wissenschaften*, 1ter Band, Seite 19.)

† "A chasse-marée is a species of coasting vessel used

"Two men of the Sappers and Miners were put on board each vessel to level the waist-boards with the decks, so that the cables might be stretched across as soon as the vessels should be moored. The floor was supported by five cables, lashed in the notches of a sleeper placed fore and aft, on the deck of each vessel. Five cables, 13 inches in circumference each, and 120 fathoms long, were put on board the chasse-marées destined for the centre of the bridge, and so coiled that they could be handed up the hatchways, right and left, at the same time.

"The river was bounded on both sides by perpendicular stone walls 14 feet high, and an equal thickness. That on the left bank was backed behind by sand, level to its surface; while the ground behind the wall on the right bank was 12 feet lower than the top of the masonry, and covered at high tide by 7 feet water. The rise of the tide, at springs, was 14 feet.

"On the right bank, the end of each cable was fastened to an iron 18-pounder, which was thrown over the wall. Those parts of the cables which rested on the masonry were *served* with green bullock hides, to prevent rubbing. On the left bank they were stretched by capstans and gyn tackles, fixed to a frame of timber laid on the sand behind the wall, 3 feet lower than the top of the masonry and loaded, in the rear, with sandbags, to prevent it from tilting upwards.*

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on the shores of the Bay of Biscay, of from 20 to 40 tons burden, and measuring, generally, about 50 feet in length on deck, and from 12 to 15 feet on the beam."

* "Up to that period the construction of a bridge across the Adour, at this part of the river, was considered quite impossible, on account of the constant agitation of the sea in this channel; but a circumstance particularly favourable to the establishment of this bridge existed at the commencement of 1814, namely,

"A boom was prepared at the same time, under the direction and with the assistance of Admiral Penrose, for the protection of this bridge. It consisted of masts of from 50 to 100 feet in length, and 1 to 2 feet in diameter, the strongest placed in the front line. These were anchored, each individually, by the centre; those in the first line being up the river stream, and those in the rear line having their anchors down the stream to meet the flood tide. The masts in the first line were placed 20 feet asunder, and connected with chains, as well with each other as with those in the rear line; the masts in the one line covering the intervals in the other. These lines were 24 feet asunder and the chains allowed to hang slack, so as to be about 12 feet below the surface of the water. Two strong 13-inch cables were stretched along the whole line of masts, and *set* as tight as possible, securing them, by lashings, to both ends of each mast. Four gun-boats were placed in advance of this boom, to assist in its protection; and on each bank of the river was placed a battery of three travelling 18-pounders; while light boats were constantly kept in readiness, with fire-grapplings, to meet and anchor anything that might be drifted down the stream, before it reached the boom; and during the night guard-boats, and boats of observation, were kept constantly rowing about."

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the oblique position of the channel, at that time, with respect to the bar at its entrance. This channel, as far as the mouth of the Adour, had become nearly parallel to the coast, and the bar consequently acted as a kind of traverse or breakwater, and thereby diminished the agitation of the water in the river. The bridges constructed by the English remained stretched for more than two months, the passage was not for a moment interrupted, nor did the bridge receive any material injury from the gales which are so frequent in the Bay of Biscay, and which were extraordinarily violent during the spring of 1814." (*French Translator's note.*)

Of the purposes served by a flying bridge, as well as of the principle on which it is worked, few readers of this paper are likely to be ignorant. It is neither more nor less than a raft, so made fast in a river as to secure the action of the stream obliquely, with a force sufficient to carry the vessel across from one side to the other. It may consist, likewise, of two boats, which shall move in different axes of the circle simultaneously,— or a cable passed over the river, with a running block attached, may serve as the guiding line; and manual strength or a common wheel supply the motive power. Since the application of steam to purposes of navigation, flying bridges have become rare in this country. But they are still, we believe, of common occurrence on the continent. We recollect two which used a year or two ago to ply on the Elbe; one near Pilsen, the other close to Schandau in the Saxon Switzerland.

For military purposes flying bridges may be described as supplemental rather than primary, in regard to their importance. Being easy of construction, they facilitate the arrival of supports to the forlorn hope which may have previously crossed in row-boats; and they come in, with excellent effect, in compensation of any damage which a

bridge of boats may have sustained, and on the maintenance of which the safety of an army or of a detachment depends. This was strikingly exemplified at the passage of the Rhine in 1795 by General Jourdan at Neuwied, a little below Ehrenbreitstein. The passage of the river had been forced: a bridge of boats was laid. It had been protected against innumerable missiles sent down by the Austrians, and a portion of the army was across, when an accident befel which might have led to the most disastrous consequences. The French general, Kleber, had directed all the boats in the Sieg to be burned, as soon as it should be ascertained that the corps engaged in crossing the Rhine was safe. The orders were very carelessly executed. The boats were not only fired too soon, but were permitted to float in a burning state into the main river. They drifted against Jourdan's bridge, which instantly caught the flame, and was scarcely saved from total destruction by the scuttling and sinking of some of its piers. Such a misfortune could not be repaired in a moment; and it was only by the hasty equipment of a flying bridge, and the sending over upon it of supports to the troops on the far side, that the latter managed, with hard fighting, to keep their ground.

The principle on which we construct a bridge on rafts, on casks, or inflated skins, is the same which guides us in the laying down of pontoon-bridges and bridges of boats. We find or construct piers sufficiently buoyant to sustain the weight which it is proposed to lay upon them, and surmounting these with appropriate saddles, we arrange on them our balks and chesses, just as we should do were boats or pontoons there to support them. Rafts, casks, and inflated skins are, however, to be pressed into the service only when other and more obviously suitable means of passing a river are wanting. The materials for piers of rafts are found chiefly where wood is abundant; and there are some trees which prove more available for the purpose than others. Taking the specific gravity of water at 1000 oz., it will be seen that while American pine varies from 402 to 632, oak weighs 750, heart of oak 1170, larch 530, and English poplar only 383. This last, therefore, which no shipbuilder would touch so long as other wood could be procured, is the best adapted of any for raft purposes; whereas heart of oak — the pride of our navy — must be classed in the same category with the box of Holland and of the Brazils, the pomegranate, the American ebony,

and the vine. It cannot be used at all in the construction of piers for a floating bridge.

The materials of which we now speak are to be procured either by cutting down trees or taking possession of felled timber, or removing from barns or houses such beams as may appear to suit our purposes. There are, however, limits both to the size and to the cubic contents of such beams. Anything below 25 ft. in length, a mean girth of 30 in., and a content of 12·5 at the least, is too small to be serviceable. Anything beyond 35 ft. in length, with a mean girth of 78 in. and a content of 118·3, is too large to be removed, with the appliances generally at our command, from the spot where it has been felled. We must refer the professional reader to Sir Howard Douglas's work for the rules by which he is to be guided in calculating the specific gravity of his materials, as well as for instructions how to convey them in every emergency to the point where they are wanted. But we should do injustice both to our author and to the important subject which he discusses, if we failed to transcribe the following sentences:—

"Bridges of rafts being in general only temporary expedients resorted to upon sudden emergencies, the construction should be such as to effect the purpose with the least means consistent with safety; and this we are now to consider.

"A fir-tree of 4·33 feet mean girth, and 30 in length, contains 44·9 cubic feet, and will float 1128 lbs. Six of these will float 6768 lbs. Deduct the weight of 5 balks of oak, 4 inches wide, 6 inches deep, and 26 feet long; also the weight of 2-inch planks, sufficient for a floor 10 feet wide, and 12 long; in all about 1981 lbs., and there will remain 4787 lbs. for the weight which each raft is capable of bearing. If the rafts are 12 feet distant from centre to centre, and the whole bridge covered with infantry filing across, each will have to sustain 12 men nearly; which, taken at 180 lbs. per man, is 2160 lbs., leaving 2627 lbs. for the remaining buoyancy of each raft.

"If the timber be well seasoned, and has not been long in the water, infantry may pass under a front of 4 men, ranks 30 inches from each other, by which each raft will have to bear 16 men (2880 lbs.); retaining a buoyancy, by calculation, of 1907 lbs. But, in general, the excess by calculation should be greater than this, to allow for loss * and deficiency † of buoyancy.

"The mean diameter of a tree whose mean girth is 4·33 feet, is 1·38 feet. A raft of 6 trees of this size will be 8·28 feet wide; and the interval between two rafts, placed 12 feet between centres, will be 3·72 feet; a space sufficient to allow a great part of the superficial current to pass.

"Cavalry may pass by twos, but intervals of three feet should be left; when each float will have to sustain about 2632 lbs., the weight of two men and their horses.

"The weight of a light 6-pounder and limber, complete, with 4 horses and 2 drivers, is about 8000 lbs.; but as these cover about 33 feet in the march, they will always be sustained by 3 floats directly, and further supported by the adjoining

* "By imbibing water. If the ends are not tarred, dry timber will increase its weight one-sixth by two or three days' immersion."

† "By being full of sap when cut."

two. Three floats could bear this weight, viz. 2667 lbs. each, as we have seen; but, to render the operation quite safe, intervals of 15 feet should be allowed between guns in crossing, in order that the weight may be borne by all the floats which are reached by the balks actually pressed upon.

"Heavy guns should be unlimbered, and drawn across by hand, with long ropes to keep the men at a distance from them. The weight of a 9-pounder gun and carriage is about 2856 lbs., which, being more concentrated than any of the other weights here considered, will be most severe upon the bridge."

The following description of a bridge of this sort, constructed at a critical moment by a portion of that corps of which we hope ere long to see the revival, will interest the general reader:—

"In July, 1809, when Sir Arthur Wellesley's head quarters were established at Placencia, it became necessary to secure the means by which a junction might be formed with Cuesta. Two companies of the Staff Corps were accordingly sent, with a strong working party, to Baragona, to make a bridge across the Tietar. This river, though deep only on one side at that part, is so wide as to have required 15 pontoons to form the bridge which the French constructed there some time before, and which, upon retiring to Talavera, they of course entirely destroyed.

"The officer sent to re-establish a communication across that river could find no other materials with which to effect this than the timber of a large inn and its outhouses, about a mile and a half distant, and some pine-trees that grew in a neighbouring wood. The building was therefore immediately unroofed, and timber of the following descriptions and dimensions procured from its demolition. Six beams of dry fir, each about

20 ft. long and 2 ft. square; three or four hundred rafters, about 10 ft. long, and 6 in. by 4 in section; six large doors; and 20 running feet of mangers from the stables. The six large beams were formed into a raft about 20 ft. long and 12 wide; the buoyancy of which was therefore about 15,500 lbs. The rafters formed the beams, and the planks of the mangers the floor. This raft had to support a floor about 30 ft. long, to which it was fully adequate; its extreme buoyancy being sufficient to float 60 or 70 men, exclusive of the weight of floor; and half of that buoyancy being not much more than was required for the weights that had to cross it. In the shallower parts of the section piles were driven into the bottom of the river, and caps of light material laid across: the beams were formed of young pine-trees, 30 ft. long, and about 7 inches in diameter. The doors and mangers of the inn, being too thick for the only nails that were forthcoming, were secured to the beams by ribands formed of young pines split thus ⊖, which were laid over the ends of the planks, and tied, with willow twigs, to the outside beams and to the caps of the piles. The raft was made fast to a sheer-line, attached to a tree on one side of the river, and to a stake driven into the sand on the other. A trestle, and two large wooden mallets, made on the spot, were used to set and drive the piles. On the 18th of July, the army crossed the Tietar by this bridge, and by Miajados marched to Jalayuela."

The fitness of casks for bridge purposes, as well as of all other light vessels, which, whether made of deal or skins, can be rendered air-tight, needs, after what has been already stated, no demonstration. With casks, indeed, provided they be large enough, bridges may be constructed on an emergency which shall sustain, not infantry alone, but

cavalry and field artillery also. Six wine-pipes, lashed together, would make a very good raft. Its weight would not much exceed that of one formed with two large cylindrical pontoons, and it would sustain a burthen less than a pontoon raft by four or five cwt. only. And small armies or corps are continually liable to be thrown into situations where a knowledge of this fact may be of the utmost importance to them. Thus, in mountainous and difficult countries, where carriages are unable to travel, it will always be possible to transport on mules, or even by hand, empty casks enough, with the necessary planks and beams, to bridge over the sort of rivers which may be expected in such districts, to cross our line of march. And if our field of operation compel us to traverse a desert, the casks and skins in which water for the use of the troops is conveyed may prove of immense service after we shall have emptied them. Thus Alexander's army passed the Oxus on rafts made of skins stuffed with dry grass. (Arrian, lib. iii. cap. 99.) We are informed by Livy that Hannibal's Spanish infantry crossed the Rhone by swimming with the assistance of inflated leathern bags; and Cæsar states that it was a common practice with the Spanish and Portuguese light infantry to pass

rivers in this manner. Nor is modern authority wanting in support of these statements. Colonel Chesney, in his "Expedition for the Survey of the Euphrates,"—a valuable work, to which full justice has not been done,—describes in detail the sort of rafts (consisting of logs of timber supported on inflated skins) which are still used, for trading and other purposes, in the rivers of Western Asia. These are facts which every educated and thoughtful officer will carefully register against the hour of need; for where cattle follow an army (and the army is in a bad plight which is not so attended), materials for the construction of rafts never can be wanting. We have only to take the skins of the slaughtered beasts, and deal with them properly, and a very effective floating vessel is at our disposal.

"The following experiment," says Sir Howard Douglas, "was made with an ox-hide trimmed into a circular shape, of about 5 ft. 6 in. in diameter. The skin was drawn together at the edge, and firmly bound round a tube made of alder-tree, having the pith removed; and a piece of leather was nailed upon the inner end, as a valve to prevent the air from escaping. The vessel was inflated by a common hand-bellows, and floated 300 lbs.; and, without any application to close the pores of the skin, remained nearly fully inflated for five hours; at the end of twenty-four hours, it was still found capable of floating 150 lbs. The weight of the skin was 45 lbs.; so that by this expedient great power of floatation may be packed in small

space, and easily transported. Skins may be preserved for a considerable time by common salt; and if covered with a solution of gum, or any glutinous substance, more particularly at the part which corresponds to the back of the animal, where skins are always most porous, they will retain the air for a very considerable time. By means of wooden tubes, the skins may be re-inflated in succession at any time, without withdrawing them, by merely turning up the tube, taking off the lashing, which, as a precaution, should be made to close the vessel effectually below the valve, and then using the bellows as before."

It is obvious that, in order to accomplish our purpose with rafts thus hastily constructed, we must have means at hand for making them fast in the river; and as we are supposed to be in all respects reduced to our shifts,—as regular anchors and cables cannot be within reach, how shall we supply their places? In many ways. For cables, a quantity of stout cord, such as is used in packing, well twisted together, will suffice; failing these, willow-withs or coarse grass may be turned to account. In lieu of anchors, heavy stones with ring-bolts let into them, wooden grapnels, and loaded fascines, may be resorted to.

Perhaps, of all the expedients to which armies in the field are forced to have recourse in order to facilitate their movements, and to keep up their communications, the construction of bridges upon

trestles is the least satisfactory. A bridge on trestles can hardly be put together at all if the bed of the river be rocky or muddy, or the river itself be very deep or fluctuating in its course. Such a bridge will never hold its ground against any sudden rise; for if one vessel be swept away, the undue pressure upon the rest becomes fatal. Still, forasmuch as a trestle bridge is perhaps the easiest of all bridges to construct, and that it serves every purpose where the stream happens to be quiet and of moderate depth, the student will do well not to overlook the section in Sir Howard Douglas's work which treats of such bridges generally. He will there be shown of what materials trestles can be formed; how they are driven, as well in deep water as in shallow; what sort of balks are most suitable for connecting one with another; what weight of flooring is required, and how it is to be procured and laid down. For our own parts, we must content ourselves with giving, in the language of our author, two instances: one of failure in a trestle bridge through an accident which could not be guarded against; another, of its complete accomplishment of a proposed object in the face of difficulties of which the extent seems to have been enormous.

"The little reliance that can be placed on trestles was seriously experienced in the operations on the Guadiana in 1811, when it became necessary to lay a bridge across that river at Jerumena. Notwithstanding the reports and assurances of the Portuguese government that the river abounded in serviceable craft, and that 20 large boats, which had formerly served for a bridge, were at Alvas, only five of those boats had been taken from Badajoz, and no other means could be found, in addition, to make a floating bridge across the river. But the officer of Engineers, Captain Squire, did everything that could be done to construct, by other means, a bridge across the river. The five boats were applied in the usual way in the middle part of the stream; and, the depth towards the sides not exceeding 6 or 7 feet, the communication was completed with each bank by trestles. The bridge being finished, the troops were assembled ready to commence the movement, when a sudden rise of the river, to the extent of many feet, took place, swept away the trestles, and rendered the adjoining ford impassable. The communication being thus broken up, the five Spanish boats were immediately formed into two flying bridges for the cavalry and artillery, — one formed of two, and the other of three boats, — and a bridge for the infantry was constructed with some pontoons and casks, procured from the neighbouring villages, to complete it."

As a counterpart to this, take the following: —

"On the retreat from Moscow in 1812, Napoleon and the wreck of his army crossed the Beresina on two trestle bridges.

"The Russians having cut the bridge at Borisow, and being in position, in great strength, on the right bank of the river, it became impracticable for the French to effect a passage there. It was generally expected that Napoleon, checked at that point, would endeavour to pass the river below Borisow; and, ac-

cordingly, the Russians directed their attention and movements to the Lower Beresina, whilst Napoleon turned, with infinite ability, to attempt the passage near Wesolowo, about four leagues higher up.

"General Eblé, of the Engineers, who, from the beginning of the campaign, had made all the arrangements for the equipment and construction of military bridges, was specially charged with the important duty of providing for the passage of this river; and he discharged that duty with a degree of forecast and ability to which, certainly, Napoleon owed his escape, and the wreck of his army its safety.

"General Eblé began to prepare, at Smolensko, for the difficulties which he foresaw in this operation. He formed, with every care, a train sufficient for the transport of all the tools and stores that might be required; and, further to provide against casualties and accidents, every man belonging to the companies of pontoniers was obliged to carry from Smolensko a tool or implement of some kind, and a proportion of nails. Fortunate was it for the army that he did so; for such was the difficulty in bringing up the carriages containing stores, that only two forge waggons and six caissons of tools and nails could be preserved. To these the General added a quantity of iron-work taken from the wheels of carriages that were abandoned on the march. Much was sacrificed to bring off these valuable materials for making clamps and fastenings; but, as Ségur observes, that exertion 'sauva l'armée.'

"The breadth of the Beresina at Wesolowo is about 100 yards—the greatest depth from 6 to 7 feet—the bottom muddy—the current moderate, but much loose ice was drifting down. The right bank is usually very marshy and soft; but the frost had hardened the ground, and made it practicable for carriages to approach the river.

"The preparatory works were commenced at about 5 P.M. on the 25th. Timber was procured from the demolition of houses.

The height given to the trestles varied from 3 to 9 feet, according to the part of the river in which they were to be placed. The length of the ridge-beam was 14 feet. Twenty-three trestles were designed for each bridge, and consequently twenty-four bays, or intervals, of about 13 feet. Trees about 16 or 17 feet long, and from 5 to 6 inches in diameter, were felled for beams and applied in the round, there being no time to square them. For the superstructure or roadway of the bridge, intended for the artillery and other carriages, round timber, from 15 to 16 feet long and from 3 to 4 inches in diameter, was collected. For the flooring of the bridge for the infantry and cavalry, old planks, about 7 or 8 feet long, and 5 or 6 inches broad, and half an inch thick, to be placed in three layers, were torn off the houses.

"At daylight, on the 26th, it was announced to Napoleon that the division of Tchaplitz had moved from its position on the other side of the river. Napoleon immediately ordered some troops to be thrown across, and the two bridges to be commenced. Both were immediately begun; and, at the same time, some cavalry, each dragoon taking an infantry soldier behind him, swam across: whilst, by three small rafts, each capable of carrying about ten men, three or four companies of light infantry were likewise thrown over: these in a short time cleared the right bank of the river of the cossacks who still hovered about. Great difficulty was experienced in placing and keeping the trestles steady, until the floor could be laid, and, by its weight, fix them. No small boats could be had to facilitate the work; and the frost was so severe, that many of the pontoniers, who were obliged to remain in the water throughout these operations, nearly perished with cold. At about 1 P.M. on the 26th, the bridge for the infantry and cavalry being finished, the divisions of Le Grand and Dombrouski, amounting to about 7000 men, crossed; and an 8-pounder and howitzer, with their waggons, and some others with musket ammunition, were taken over; in doing which it was necessary

to observe the greatest circumspection and caution. The bridge destined for carriages (the construction of which was suspended for about two hours in order to finish the other sooner) was completed at about 4 P.M. and the artillery and other carriages immediately began to pass. The roadway of this bridge being composed of round timber, the movement of the carriages on so rough a surface, and the pace of the horses, which, notwithstanding the orders that had been given to the contrary, were permitted to trot, caused the most violent shocks to the bridge. The trestles sank, unequally, in the muddy bottom; great undulations in the superstructure, and inclinations of the trestles to either side, ensued; and these occasioned still greater strains. — The feet of some of the trestles separated, and three fractures in the roadway took place. Fresh beams were laid, but soon afterwards three trestles broke. The pontoniers resumed their work, and at 11 o'clock, the bridge being again practicable, the carriages recommenced crossing. On the 27th, at 2 A.M., three trestles, in the deepest part of the river, gave way: the pontoniers immediately set about repairing the disaster, but this proved a very difficult operation. It was effected, however; and the communication being re-established, the movements were resumed at about 6 A.M. Again two trestles broke, but they were repaired after about two hours' labour; the movements continued, and thus a small portion of the vast material of the grand army was saved.

"The trestles of the bridge on the right, being only for cavalry and infantry, did not give way; but the thin planks which formed the roadway, having suffered much from the use which had been made of them, as coverings to the houses from which they had been torn, could not be solidly fixed, and were constantly getting deranged, splitting under the horses' feet, or breaking into holes. To obviate this as much as possible, the floor was strewed with tow and hay, and the covering frequently renewed and readjusted.

"When the Imperial Guard began to move, the stragglers

dispersed in the surrounding woods and villages, who had not taken advantage of the first night to cross the river, now rushed from all sides, and flocked to the river in one dense and confused mass, which soon choked up the narrow entrances to the bridges. The foremost, impelled by those who followed, were driven upon the guards and pontoniers, who were endeavouring to keep a passage open for the troops. In repressing these crowds of fugitives, many were trodden under foot in the mêlée, others thrown upon the floating ice, and great numbers, unable to regain the bridge, or to reach the shore, perished in the river. The efforts of Napoleon and his officers to re-establish order were unavailing. So great was the confusion, that force was necessary to clear a passage even for the Emperor, who crossed at about 2 P.M. with about 6000 of the guard, under Ney. The troops continued to pass till the morning of the 29th; but multitudes of stragglers, benumbed with the cold, were unable to avail themselves of this last opportunity; and about eight in the morning, General Eblé, seeing the Russians advancing, was obliged to set fire to the bridges, leaving vast quantities of ammunition, artillery, and baggage,—thousands of men, and many women and children, to the mercy of the enemy, and to the rigours of the climate."*

Passing by our author's remarks on "Pile Bridges," not because they are unimportant, but because bridges of this sort are as common in civil as in military architecture, we proceed to the last, and certainly not the least interesting, of the portions into which his treatise is divided. An army in retreat rarely omits to break down one or more of the arches in every stone bridge which it crosses.

* Ségur.

An army in pursuit must be able to repair such breaches, and to do so speedily, if it hope to overtake the fugitives. A corps or advanced guard, passing through a mountainous district, is continually liable to be brought up by streams which roar and brawl within precipitous banks, perhaps fifty feet above the level of the water. An advanced guard is never secure against the interruption of a canal, a broad drain, or a narrow river. A storming party may have a wet ditch to pass ere it can touch the escarp of a redoubt. What is to be done to enable the troops to surmount each of the obstacles when it occurs? In the first case means must be found for connecting the separated piers. In all the rest, the tact and ingenuity of the pontoniers must be taxed to throw a suspension bridge across the gap. The following general instructions will be found well worth the notice of all whose position or tastes lead them to the investigation of such questions: —

"When beams cannot be obtained of sufficient size, in section, to enable them to support the weights they have to bear, the most obvious method of increasing the strength is to attach two or more of them together. One of them should be placed above the other, rather than by its side; for since the transverse strength of beams varies with the breadth and the square of the depth, vertically, it is evident that, with equal areas of

section, that beam is the strongest whose depth is the greatest. It should be observed, however, that this manner of placing two beams can only be used when their bedding is so secure that there is no risk of their turning over. The united strength of two beams so placed will be increased by preventing them from sliding upon one another at the surfaces of contact; which may be accomplished by cutting rectangular notches opposite to one another, transversely, in the upper surface of the lower beam and the under surface of the other, and placing pieces of hard wood in the holes thus formed; the intention being to make the fibres of one piece of timber act against those of the other in the direction of their lengths.

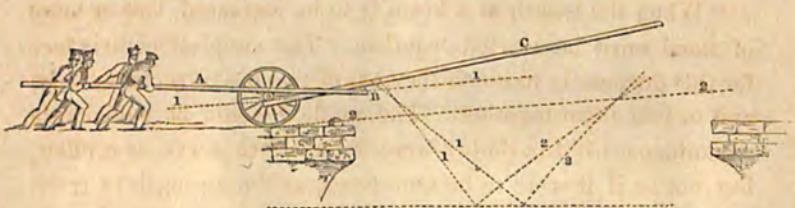
"When the length of a beam is to be increased, two or more of them must be scarfed together. The simplest contrivance for this purpose is to notch the ends of two beams rectangularly, and to bolt them together. The method would be sufficiently advantageous if the timber were intended to serve as a pillar, but not so if it were to be a *tie-beam*, as the strength to resist a longitudinal strain depends wholly on the bolts, which may be bent by such a strain.

"The beams of the famous bridge at Schaffhausen were so scarfed that the parts could not be separated by a longitudinal strain, unless the bolt were burst."

Possessing a knowledge of these truths, and a general acquaintance with the principles on which a system of beams is combined for the purpose of forming the roof of an ordinary building, an officer will experience little difficulty, provided there be adequate means at his disposal, in connecting the piers of a ruined bridge upon a river of which both banks are in his possession. But, in following up

an enemy, this can seldom be the case, and then it is that the skill and ingenuity of the engineer are taxed. Listen to Sir Howard, and examine at the same time his diagram, of which we subjoin a copy:

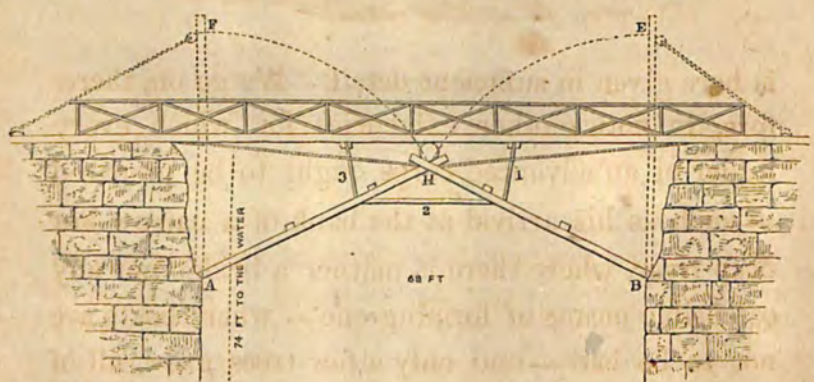
"In restoring, by carpentry, communications across broken arches, and (as in following up a retreating army) when only one side of the impediment can be got at, the great difficulty is to get the first beam across the gap. The method of effecting this was frequently resorted to in the Peninsula. For this a pair of wheels and an axle-tree are sufficient; and the process



is so incapable of injuring them, that gun or waggon wheels, or limbers, may with great propriety be used, taking care, if a limber, with its shafts (the ammunition boxes being removed), is employed, to lash two beams (one of which, A B, only appears in the figure) to the shafts, so as to project beyond the wheels. Then, the beam C, to be laid over, be placed on skids sufficiently high, the carriage, with the beams A fixed as described, is backed till the axle-tree is a little within one end of the beam C: the beams A are then elevated, at the ends where the men are, in the figure, till their opposite points are so much depressed as to admit of the cross-beam B being placed underneath the beam C, which is to be laid across the impediment. The lever A is then worked downwards, and as soon as the beam is lifted, the whole is easily moved forward to the edge of the gap, where a high sill should be laid, to prevent the wheels from approaching too near."

Again: —

"The stone bridge across the Coa at Almeida, having been destroyed by the French in their retreat, and a passage across the river there being necessary for the operations of the allied army, a communication was established in the following manner: — Notches A, B were made in the masonry, and two frames, A F, B E, eased down, vertically, from the edges of the gap, in the upright positions A F, B E, resting upon the notches A, B. Two tackles, applied to each frame, led to ring-bolts set in the masonry at about 30 feet from the gap. Fifty men being put to each tackle, the frames were lowered down to cross each other at H. Gang-boards were then shoved out, and men sent to put in key-bolts, previously prepared: a ridge-piece was then fixed in the fork H, the beams laid, braces 1, 2,



3 put in, and the communication served without shake or failure."

We might add to these descriptions an account of the operations of the staff corps, in repairing two arches in the bridge at St. Jean-de-Luz, which the

enemy, after their defeat on the Nivelle, had broken down; but we should only repeat in substance what

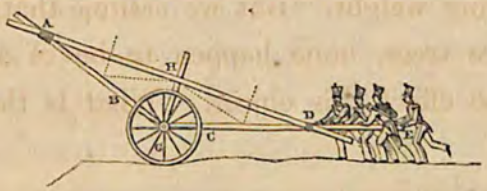
is here given in sufficient detail. We go on, therefore, to notice other exigencies for which every leader of an advanced corps ought to be prepared — such as his arrival at the bank of a narrow but deep river, where there is neither a bridge nor any ostensible means of forming one — where boats are not to be had — and only a few trees grow, all of them too short to be stretched from one bank to another. If, indeed, there be one tree within reach long enough to stretch across, he is safe enough. He has only to fell it into the water, confining the trunk to its own bank, and letting the current force the head round to the opposite side. The branches

will be sure to get jammed there with great force, which will assist the natural buoyancy of the tree in carrying weight. But we assume that, though there are trees, none happen to be of sufficient length to effect this object. What is the officer to do?

"If the river be too wide to be spanned by one tree, and that two or three men can, in any manner, get across, let a large tree be felled into the water on each side, and placed close to the banks, opposite to each other, with their heads upwards. Fasten a rope to the head of each tree — confine the trunks — shove the heads off to receive the action of the current, and ease off the ropes, so that the branches may meet in the middle of the river, in an angle pointing upwards: the branches of the trees will be jammed together by the force of the current, and so be sufficiently united to form a tolerable communication, when a few of the upper branches are cleared away. If insufficient, towards the middle of the river, to bear the weight of men crossing, a few stakes, with forks left near their heads, may be thrust down, through the branches, to the bottom of the river, and hitched to the main branches of the trees; or the force of the current may be made to yield vertical support to the communication, by applying a few planks, forming a plane, inclined to the surface of the current in an angle of about 50°: by this means, that power which, in the flying bridge, acts horizontally, may be obtained vertically, in a manner that will greatly add to the stability of the rough structure."

Another ingenious method of constructing a bridge in a hurry is this. An officer has at his disposal a pair of wheels, — a gun-carriage will do,

— connected by the axle-tree, a few beams, and a sufficiency of rope. He fastens the ends of two



beams, AB and CD, to the axle on one side, and to the beams AD, on the other, he regulates the opening AGD according to the known breadth and depth of the impediment to be surmounted, and prepares his floor of a few light planks. It is laid, and at a convenient season the whole machine is run up from the rear, and pushed forward into the river or ditch, till the extremity C C mainly rests upon the near edge. The wheel is thus in the middle of the water, and by letting go the line which keeps G A C in an elevated position, that section of the bridge falls, and a communication between the opposite sides is established. The merit of this invention belongs to the late Lieut.-Gen. Sir William Congreve, of the Royal Artillery. He meant his bridge to attend columns of attack in the assault of field works, on which occasions we doubt not that it would prove very serviceable.

Suspension bridges are important chiefly as esta-

blishing the communication of an army with its rear, and enabling it to pass rivers which the enemy have long abandoned and of which we are therefore in full possession. The principles on which they are constructed demand no elucidation at our hands. They do not vary, whether the bridges themselves be designed to facilitate warlike operations or peaceful traffic. One great difference, however, is found in them — that whereas the civil engineer has iron rods and ties at his disposal, the military artificer is obliged to depend upon ropes and timber. One of the most beautiful specimens ever executed of bridge architecture of this sort was presented to the admiring gaze of the British army in 1812. Sir Howard has made it the frontispiece to his treatise. We cannot do better than leave to him the pleasant task of describing it.

"One of the principal arches of Trajan's bridge across the Tagus, at Alcantara, having been destroyed by the French, Lord Wellington found it necessary to direct that a communication over that bridge should be re-established, for the purpose of bringing up artillery and stores from Badajoz for the attack of the forts at Salamanca. Timber of sufficient dimensions to effect this could not easily be procured; and, indeed, any application of that material to make good such a fracture would have been extremely difficult, and required much labour to be performed on the spot in fashioning, framing, and setting up the work; and which, consequently, would have given warning

to the enemy before the campaign opened of some important movement in that quarter being intended.

"To obviate these difficulties and objections, the officer sent in April, 1812, to make preparations for these operations—a man of fertile genius and great practical knowledge—happily devised an application of cordage, which might be prepared secretly and even in privacy at any distance from the place at which it was to be used; it might also be easily transported thither entire, and speedily stretched across whenever it might be required. The formidable impediment was very nearly 100 feet wide. The materials of which this extraordinary work was constructed were as follows:—

"1. 4 beams of poplar, each 30 feet long, 12 by 8 inches.
"2. 8 ditto, each 20 feet long, 6 inches square.
"3. 48 joists, each 12 feet long, 3 by 5 inches.
"4. 120 ditto, each 12 feet long, 1½ by 5 inches.
"5. 100 half-inch screw bolts, each 10 inches long.
"6. 100 inch-and-half planks, each 12 feet long, 1 wide.
"7. 50 two-inch planks for the ends, same dimensions.
"8. 10 triple blocks, sheaves 12 inches diameter, brass cogged and iron pinned.
"9. 10 double ditto, ditto.
"10. 10 double blocks, sheaves 6 inches diameter, for working tackles and guys.
"11. 10 single ditto, ditto.
"12. 450 fathoms 6½ rope, for great net and bridge bearers.
"13. 200 ditto 4½ rope for falls, for bridge tackles.
"14. 200 ditto 2½ rope, for working tackles and guys.
"15. 100 ditto 4½ rope, for straps round the beams.
"16. 1000 ditto 3 and 4 yarn, spun yarn.
"17. 140 yards strong tarred canvas.
"18. 500 weight bars of iron, for cramps and bolts.
"19. 200 lbs. of lead.

"Tar, rosin, grease, marling spikes, fids, old canvas for

parcelling, salvages, straps, tail tackles, twine needles, a portable forge, blacksmiths', masons', and carpenters' tools, drill hammers, scrapers, and needles.

" Two pontoon carriages.

" Four crabs or small capstans.

" The rope-work was put together in the pontoon house at Elvas, in the following manner:—two beams (1 in the preceding list), laid on trestles 4 feet high, placed 90 feet asunder, were first secured to the end walls of the house by tackles and braces. The 6½-inch cable was then stretched in eighteen lengths, or rows, round the beams with a uniform, moderate strain, such as to admit of the parts or rows of the cable being drawn together by strong lashings, at alternate points, and formed into a body of net-work; the two outside rows of the cable being first steadied by tackles to the side walls of the house, to resist the inward strains resulting from the process and to retain the net-work of uniform width throughout.

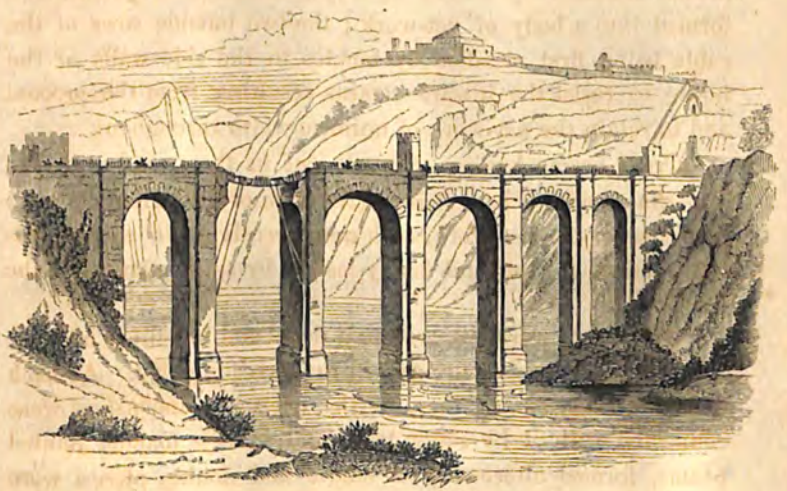
" Cross beams having channels cut in them, and seared to smoothness with a heated iron (the arm of an axletree), were then laid on the net-work, each notch receiving its corresponding portion of rope, and firmly lashed by spun yarn at all the crossings.

" The beams were prepared in a novel and ingenious manner, with the materials mentioned in the preceding list. At each end of a beam, two of those of the narrower dimensions were connected with it by screw bolts, and in this manner jointed beams, formed alternately of single and double pieces, were easily set up, and prolonged to the full length of the floor of the intended communication when required for use.

" Several important objects were accomplished by this ingenious contrivance. The individual parts were of very convenient length for being transported on carriages, easily put together, and readily adjusted as the work proceeded. The beam of the larger dimension in breadth was used for the single

part, whilst two of half that dimension were applied to form the link which connected it with the next single beam, and these gave to the whole a sufficient and nearly uniform strength. Joints resting upon cross pieces permitted the beams to confirm, by their flexibility, with the curvature of the bridge: and the bearing of the double portions of the beams on each cross-piece, being nearly 8 inches, was more favourable to the solidity of the whole than could have been effected in any other manner. The beams, thus formed and laid athwart the cross-pieces, had their joints adjusted to lay exactly on those bearers, and were then firmly lashed at each end of the bridge.

"Planks for flooring were provided, with holes bored in the end of each, to admit of their being lashed to the beams, and to each other.



"This vast net, when completed, with its end beams, was rolled up, firmly bound together, and loaded on a pontoon carriage. The means of transport for the whole apparatus were two pontoon carriages, each drawn by six oxen; eight large cars, each drawn by four oxen; and the lighter materials in seventeen cars, drawn by two oxen each.

"At a sufficient time previous to the removal of the materials for application, an intelligent officer, Lieutenant Perry, was sent to superintend the cutting of channels in the masonry of the bridge, to receive the straining beams, to which tackles were to be fixed.

"To facilitate the laying of the bridge, two strong hawsers, represented by the lines drawn longitudinally under the floor of the bridge, were stretched across the gap as conductors, upon which the further end of the net-work might be hauled over.

"A tarpaulin, 4 feet wide, was stretched along the outside ropes, as a blind for cattle and horses; and tackles fixed to two of the cross beams and to ring-bolts set in the masonry below, to brace and steady the bridge. A railing, formed of posts and ropes, completed this extraordinary work; and the whole was finished in time to open a passage across the Tagus for the column of siege artillery, under Colonel Sir Alexander Dickson, who crossed it on the 11th, and arrived at Salamanca on the 20th of June."

Here, then, we bring to a close our analysis of Sir Howard's very able work. The extent to which our remarks have been carried — not less than the nature and length of our quotations — sufficiently vouch for the degree of estimation in which we hold it. But we should be untrue to our craft were we to let it pass out of our hands absolutely scathless. We think that Sir Howard is not always happy, either in his style or in the arrangements of his subjects. The former is loose, sometimes obscure, not unfrequently tautological. The latter would be very much improved were the

order in which he has placed his sections less involved, and in some striking instances inverted. We allude especially to that section or chapter with which the treatise opens; and which, if received into the volume at all — of which we are doubtful — would have stood better at the end of the book than at the beginning. However, these are defects which indicate rather lack of skill in the *author* than of intelligence in the man. The Treatise on Military Bridge-making has obtained, as it deserves, a European reputation. And we recommend it to the officers of the army, as a work which will prove to them not the less useful, that it will demand from them, while studying it, their best and most concentrated attention.

THE WAR OF THE PUNJAB.*

PROBABLY every reader is aware that the Punjab derives its name from two Persian words — "*punj*," signifying "five," and "*aub*," "water." Of the five great rivers which run through it — namely, the Indus, the Jeylum, the Chenab, the Ravee, and the Sutlej — the first and last form, in strict propriety of speech, its geographical boundaries: but its political limits are much more extensive. They embrace a territory which — if we include Peshawur, the countries west of the Indus, Iskardoh, Ladakh, and other hill-states —

* Taken from the Quarterly Review, for June, 1846.

1. *Despatches of the Right Hon. Lieut.-General Viscount Hardinge, G.C.B., Governor-General of India; the Right Hon. General Lord Gough, G.C.B., Commander-in-Chief; Major-General Sir H. Smith, Bart., G.C.B.; and other Documents.* London, 8vo. 1846.

2. *The Punjab, being a Brief Account of the Country of the Sikhs, &c.* By Lieut.-Col. Steinbach, late of the Service of the Maharajah Runjeet Singh. 2nd edit. London, post 8vo. 1846.

measures full six hundred miles from east to west, by three hundred and fifty, or thereabouts, from north to south.

Besides its five principal rivers, the Punjab is watered by tributary streams innumerable, four at least of which are of large volume. These are the Punjnud, the Trinab, the Epara, and the Beas; which, with the greater rivers into which they fall, are available for purposes of inland navigation to the extent of nearly two thousand miles. This is owing in a great degree to the peculiar shape of the country, which is a huge inclined plain, rising, where it is highest, not more than 1600 feet, and descending from that, by almost imperceptible degrees, to the level of the sea. (Steinbach, p. 2.) As may be imagined, the facilities afforded to irrigation in such a country are very great, and they do not appear to have been neglected: but one serious drawback attends the peculiar conformation of the soil — that all the rivers, not excepting even the Sutlej and the Indus, are liable to change their course. Hence many a town, and village, and castle, which once stood upon the banks of a navigable river, is seen falling to decay in the heart of a sandy desert; while other and newer structures are rising where the water flows; for it

is the universal custom among the inhabitants of the Punjab to dwell as much as possible in the immediate vicinity of their rivers.

The principal towns are Lahore, Umritzer, Mooltan, Vuzeerabad, Mozufferabad, Kashmir or Siranuggur, and Peshawur. The chief fortresses are Umritzer, esteemed, though without much reason, a place of great strength; Rotas, on the high road from Lahore to Peshawur, strong from situation, but falling into decay; and Attock, on the Indus, which commands the passage of the river. Lahore itself is a town of considerable size, the circuit of the fortifications exceeding seven English miles. Having been the seat of government throughout the period when the Punjab formed a valuable province of the Mogul empire, it contains numerous remains of handsome mosques, serais, and monuments; and near it is a magnificent tomb, of a quadrangular shape, that of the Emperor Jehangeer. "The streets," says Colonel Steinbach, "like those of Indian towns in general, are narrow and dirty. The houses, though lofty, are surrounded for the most part by dead walls, which give to the place a very sombre aspect, scarcely relieved by the bustle of the bazaars, where, in mean and incommodious edifices, merchandise of

every description is exposed to sale. There are not many gardens within the town itself, but its vicinity is overspread with luxuriant orchards, amid which masses of ruins lie scattered." (p. 4.) Umritzer, the capital when Runjeet Singh swayed the sceptre, is of somewhat larger extent than Lahore, and, lying between the rivers Beas and Ravee, is a place of considerable commercial importance. It derives its name — "Amreta Sarei," that is, "the fountain of immortality" — from a superb tank or lake, of which one of the earlier expounders of the Sikh religion was the excavator. A temple to Vishnu stands upon a small island in the centre of this lake, which pilgrims and devotees maintain in great splendour by their offerings. (*ibid.*) The most striking feature is, however, the lofty fortress of Govindghur, which owes its existence to Runjeet, and was by him used as a place of safe-keeping for the treasure which he had a peculiar talent for accumulating.

From the times of Alexander the Great, when we first become acquainted with it, down to the consolidation of the Sikh empire under the late Runjeet, the history of the Punjab presents us with little else than a series of fierce wars and bloody revolutions. Forming a highway of ap-

proach to every adventurer from Central Asia, whom rumours of enormous wealth might induce to attempt the invasion of Hindostan, it has submitted easily to a succession of conquerors, — Greek giving way to Parthian, Parthian to Scythian, Scythian to Tartar, and Tartar to Mogul and Affghan. Of the last of these races was Baber, who, in 1526, established himself permanently on the throne of Delhi; and became, to use the language of an elegant historian, "the founder of a line of kings, under whom India rose to the highest pitch of prosperity, and out of the ruins of whose empire all the existing states in that country are composed." *

While the tide of war thus swept continually over them, the great body of the people of the Punjab seem to have adhered, both in their civil usages and in their religious opinions, to the customs of their forefathers. Hindoos, chiefly of the Bhudist order, when Alexander the Great came among them, they continued, in defiance of Mohammed and persecution, to profess Bhuddism still; till towards the middle of the sixteenth century a new sect arose, which, humble in its first beginnings, attained ultimately to great power, and

* Elphinstone, Hist. of India.

might have exerted, had there been common prudence to control it, a permanent influence over the political destinies of India. Of this sect—the sect of the Sikhs—Nanac, a Hindoo of the Chastrya caste and Vidi tribe, was the founder. He was born at the little village of Talwundi in the province of Lahore, in A. D. 1469. His father brought him up in the faith of his ancestors, and endeavoured to advance his fortunes in life by turning his attention to commerce; but Nanac seems to have been from his childhood averse to the ordinary business of the world, and to have resigned himself wholly to the meditation of divine things, under the guidance, as his disciples affirmed, of immediate inspiration. Thus employed he came to the conclusion that the essential differences between the theologies of the Mohammedan and the Bhudist were more nominal than real; that both religions had one common origin, though both were overlaid by many errors; and that it was his mission to bring back the votaries of each to the profession of a pure theism. The moral code of this extraordinary man seems to have been worthy of his theology. He taught that in the sight of God all men are equal; that the distinctions of caste, considered as a religious institution, were faulty; that

so far as they tended to preserve order in society, they might innocently be retained; but that to push the consideration of them farther, so as to throw an impassable gulf between man and man, was impious. He inculcated universal charity, universal kindness, universal forbearance, a perfect toleration of all creeds and of all forms and usages of worship; and he declared himself an enemy to war, no matter under what pretext undertaken. As might be expected, the name of Nanac Shah is associated by tradition with all sorts of fabulous transactions; but this much appears to be certain, that the life of the man corresponded well with the spirit of his teaching; and that both being gracious and of good report, he was marvellously successful in making converts.

Nanac died aged and in peace. He left his church, if the term be admissible, in such an organised and efficient state that there arose forthwith a successor to himself; and for a century and more, down to the year 1606, it held the even tenor of its way. But the Gurú, or chief priest, of that period, either desirous of giving a wider publicity to the principles of his sect, or fearful lest, in the progress of time, they might become corrupt, collected into a volume the sacred treatises of his pre-

decessors, and blending them with views of his own on various important topics, gave a new consistency and also a new prominency to the system. The consequence was, that the suspicions of the ruling powers were excited. Argun-Mal, this zealous Guru, was thrown into prison; and the Sikh faith being declared to be at variance with the Koran, and incompatible with the well-being of the state, the flame of persecution was kindled.

It is of the nature of persecution, sooner or later, to provoke resistance, and the sword once drawn for the defence of men's religious opinions almost always operates a change for the worse in their moral principles. The Sikhs, whom their founder had devoted to peace and to the practice of universal benevolence, became by degrees fanatics in war. Guru Govind, the tenth and last of the high priests, spent his whole life in contests with Arungzebe. He formed great designs for the erection of a religious and military commonwealth, and carried them into effect with the spirit of a Grecian lawgiver. It was his purpose to bring about a complete change in the habits, character, and creed of his followers — and he succeeded. Hitherto the Sikhs had carried arms *only* in self-defence; he broke through a rule which imposed limits on his

own ambition; and admitting converts from all tribes, used his best endeavours to array the whole of the population in resistance to the Mohammedan government. What Nanac had endeavoured cautiously and by slow degrees to bring about, he accomplished by the force of a peremptory edict. All who subscribed to the Sikh doctrine he placed, as much as possible, on a level, making the personal exertions of a Sudra as conducive to his own advancement as those of the Brahmin. Mohammedans equally with Hindoos he received with open arms, and bestowing upon all alike the honourable appellation of "Singh," he caused every individual Sikh, no matter how lowly born, to regard the Rajpoot as his brother. Finally, his followers, whom he denominated Khalsa Singh, were required to dedicate themselves to arms — to carry *steel* always about with them — to wear a blue dress, to let the hair and beard grow, and to salute one another with the cry, "Wa Guruji Ka Khalsa!" that is, "Victory to the state of the Guru!"

Guru Govind was the last spiritual chief of the Sikhs. He died insane, after sustaining terrible reverses; and Banda, or Bandu, a religious ascetic, though he took the holy man's place as leader of a military confederacy, did not venture to contravene

a prophecy which had limited the number of high priests to ten. Under Banda, however, the commonwealth grew, and acquired consistency. It survived the invasion of Nadir Shah from Persia; the irruption of the Affghan Shah Abdalla; the wars of the Mahrattas for supremacy in Hindostan; and all the persecutions that attended each of them. The battle of Paniput — hardly less fatal to the Affghan than to the Mahratta — gave new life to the Sikh confederacy, and paved the way for the transfer of supreme power into the hands of the most daring of its members.

The constitution of society among this singular people (for as a people we may henceforth describe them) appears to have resembled in many respects that of our own Anglo-Saxon ancestors. A number of sirdars or chiefs, independent one of the other, spread themselves over the country, and seizing, each according to his strength, whatever fell in his way, acknowledged no superior. The sirdars met in council at stated seasons, when the general welfare required it, to determine the steps that should be taken; but he whom they might elect to command in some particular service, abrogated his authority as soon as that service was ended; and forthwith the state became once more a mere

confederacy of chieftains. And the power of the sirdar, in his own missul, or tribe, appears to have been by no means plenary. His followers exacted each a share in the land acquired, and rendered to their chief only the same sort of service which he was bound to afford to the commonwealth. A community so made up had no principle of cohesion within itself. As long as the pressure of a common danger was upon them, the chiefs might control and keep in abeyance their mutual jealousies; but the danger was no sooner removed than the dormant feeling revived, and they lived almost constantly in a state of intestine strife.

On the final departure of Ahmed Shah from Hindostan, twelve sirdars established a divided dominion over the Punjab. Their influence, such as it was, depended on the strength of the armed contingents which they were respectively bound to furnish for the public service; and these seem to have graduated from 2000 horse to 10,000. The tribe of the grandfather of Runjeet was assessed at only 2500 horse; but what he lacked in physical power he more than made up by mental energy. He was a great warrior on a small scale, who wrested village after village from his neighbours on every side; and though killed by the bursting

of his own fusil in the flower of his age, he left the tribe in a much improved condition. His son Maha-Singh proved, as time advanced upon him, to be a worthy scion of so vigorous a stock. He came to the chiefship at ten years of age, and was well supported by his missul. He married the daughter of a neighbouring sirdar, whose influence and resources added greatly to his own; and was scarcely become a father — which title appertained to him in the nineteenth year of his age — ere he looked round for a match that might offer the chance of similar advantages to his son and heir. Runjeet Singh came into the world A.D. 1780; and six years afterwards was betrothed to a bride selected for him by his politic and ambitious father.

There was no such thing as education — using the term in the sense which we are accustomed to apply to it — among the Sikh sirdars of those days. Neither Cheerut, the grandfather of Runjeet, nor Maha, his father, seems to have had any knowledge of books; and the latter had no leisure for bestowing upon his son advantages which he had never himself enjoyed. But nature, in particular states of society, is a very effective governess; and circumstances sharpen the intellects astonishingly.

Runjeet, left an orphan at twelve years of age, and encouraged by women and sycophants to gratify every wish and every whim, proved, when the occasion arose, fully equal to it; and in the course of comparatively few years, changed his place as chieftain of a second class tribe for that of monarch of the most powerful native state that has ever existed in India.

With the peaceful habits which during the first century of their existence they had cultivated, the Sikhs put off, partially at first and in the end altogether, the pure morals of their founder. Robbers by profession, they became, in course of time, as notorious for the extravagance of their vices as for their daring; and as no restraints of a religious nature held them back, they soon added the intemperance of the European in eating and drinking, to the sensuality of the Hindu, and the bloodthirstiness and frightful propensities of the Mussulman. Runjeet appears to have advanced as far in the career of profligacy as any of his neighbours, when the irruption of Shah Mohammed from Cabul into the Punjab suddenly checked him. Chief after chief went down before the Affghan; and Runjeet among the rest, being forced to flee for his life, abandoned his home, and with it in a great de-

gree the taste for sloth and effeminate pleasures which had been generated there. He was barely seventeen when the march of the victorious Affghan drove him into exile, and threw him upon the resources of his own genius. They did not fail him. Unable to oppose force to force, he tried cunning, of which he was a consummate master; and having ingratiated himself into the good opinion of the victor, he succeeded in gathering up, by little and little, the fragments of his principality. Finally, when Shah Mohammed returned, baffled, from his attempt upon Delhi, and in 1798 marched back in shame to his own land, Runjeet played his cards with such consummate skill, that he was put in possession of Lahore and of the extensive district round about it. In that hour the foundations of his greatness were laid, and he never ceased to carry forward the edifice till it attained its completion.

Entirely unlettered, and with a most forbidding aspect—for he had suffered much from the small-pox in infancy, and was blind of an eye—Runjeet yet contrived to establish such a marked ascendancy over his brother chiefs, that one by one they acknowledged him for their master. Not that he made any ostentatious display of power by innovating

further than might be necessary upon the established institutions of the country; on the contrary, the sirdars, whether won over by diplomacy or by force of arms, continued to be treated as sirdars still, and retained their possessions as well as the honours and titles which had been handed down to them. But whatever authority they exercised, even in their own missuls, was held to emanate from him; and he effectually prevented combination for purposes of revolt, by balancing them, in the employments to which he appointed them under the crown, with exquisite nicety of skill one against another. In 1802 Runjeet's place was that of the foremost among the few remaining but still powerful lords of the Punjab. In April, 1809, he was in a position, as supreme ruler of that fertile state, to enter into a direct treaty with the British Government, whereby, in consideration of his abstaining from all attempts at aggrandizement beyond the Sutlej to the south, he was left free to push his conquests, on the north of that boundary, whithersoever ambition or fancy might carry him.

Thenceforth Runjeet lived in peace and amity with the British Government. The communications between the courts of Lahore and Calcutta were not very frequent; but no collision occurred to disturb

the friendly feeling which it was the policy of both parties to maintain. In 1819, Runjeet having been obliged to employ force, for the purpose of compelling a refractory sirdar to pay his tribute, made an effort to bring under his sway certain territories that belonged to this same chief on the left of the Sutlej; but a complaint from the chief to the British Government, and a remonstrance from Calcutta, backed by the appearance of a British corps under arms, at once restrained him; he withdrew across the river, and never passed it again. His designs upon Scinde, some years later, though fully matured, and nowise at variance with the terms of the treaty of Umritzer, were abandoned, on the reclamation of the British Government — reluctantly, perhaps, yet in sincerity. But except on these occasions, and twice when the lamented Burnes visited his durbar, and once in 1812, when General Ochterlony witnessed the marriage of the heir-apparent; and last of all, in 1831, when Lord William Bentinck met the Maharajah on the frontier, and renewed with him the compacts of other years, little or no direct intercourse went on between the two states. The English, content to be recognised as masters of their own dominions, and protectors of the petty principalities that lay between Umballa and the Sutlej, were indifferent to all that

might go on to the north of this river; while Runjeet, well pleased to be left to the indulgence of his own humours, was very careful to avoid offering any ground of interference with them.

How Runjeet overran the whole of the Punjab, absorbing in due time Mooltan, Peshawur, and Cashmere in addition, is well known to every reader of Malcolm, and Elphinstone, and Burnes. It is known likewise by what process he introduced into his army a state of discipline and an extent of efficiency such as no native force ever previously exhibited. He began in 1809, by enticing into his service deserters from the English regiments, and pensioners who had earned their discharge; and in 1822 MM. Ventura and Allard joined him. To these gentlemen he committed the charge of recasting the whole order of his infantry and cavalry; and by and by, on the arrival of M. Court, the artillery also had its European director. That all were drilled, and the artillery, in particular, put upon a most efficient footing, the events of the late campaign sufficiently attest.

Such an empire as this, erected by the genius of an individual, and having no time-honoured institutions on which to rest, runs imminent risk of crumbling to pieces on the death of the founder;

unless there be ready to succeed him a chief possessed of equal talent and strength of character with himself. There was no such gifted individual at hand when Runjeet dropt the sceptre of the Punjab. His son, Kurruck Singh, a weak man, was first deposed, and ultimately murdered, by *his* son, Noo Nehal Singh; who again, returning from attendance on the funeral obsequies of his father, was killed, not without strong suspicion of treachery, by the fall of an arch under which he passed. Great confusion ensued. One party among the sirdars proposed to place the crown on the head of Shere Singh, the son of Runjeet by another wife. Others, believing the assertion of the widow of Kurruck, that the wife of her son Noo Nehal was *enceinte*, proposed to nominate her to the regency. The latter faction prevailed, and for a brief space the supreme power of the state was nominally wielded by a woman. But such an order of things could not last; and the impossibility of the event on which the Ranee rested her claim being made public, Shere Singh took up arms and advanced to Lahore. He was joined by the army, as well as by the most powerful of the chiefs, and the Queen Regent submitted. She was put to death, as a matter of course, and Shere ascended the throne.

These several occurrences befel during the autumn of 1839 and the spring and summer of 1840. They produced, as was to be expected, a complete dislocation of society; for where political changes are effected through the intervention of the military classes, the army, which ought to be the servant and protector of the state, becomes at once its master. At the same time it is fair to state, that the Sikh army, even in its palmiest days, seems to have been an ill-used, and therefore had some excuse for being also a very turbulent body. It was the practice of Runjeet himself to keep his troops in arrear with their pay: indeed, he seldom spoke of their wages till they began to exhibit tokens of mutiny; and men who had been accustomed to threaten the "Lion of the Punjab," and to prevail against him by means of threats, were little likely to exhibit moderation when dealing with his successors. The troops demanded a largess; and when it was refused, attacked and plundered the city. They rose also upon their European officers, who, somehow or another, had become exceedingly unpopular; and killing many, forced the rest to seek safety in flight. A puppet like Shere Singh was little able to resist such a movement. He yielded every point that was

pressed, distributed large sums among the mutineers, sent them to their homes on a four months furlough, and immediately resigned himself to the habits of low debauchery, which were more in consonance with his tastes than the exercise of command.

All this while the relations between the English Government and that of the Punjab were of the most friendly nature. In 1838, when the expedition to Cabul was resolved upon, Lord Auckland had renewed and confirmed the treaty of 1831, adding to it a formal recognition of the right of the Maharajah to the territory of Peshawur, which he had wrested from the Affghans. On the faith of this treaty, when the season of adversity came, Lord Auckland had proposed to march General Pollock's army by the shorter route of Attock to Jellalabad; and as long as Runjeet lived, there was no reason to apprehend that any opposition would be made to the arrangement. But to the Sikh soldiery the power of England had long been an object of jealous abhorrence; and no sooner was Runjeet gathered to his fathers than they began to clamour for a change of policy. Kurruck, the immediate successor, was friendly to the English alliance — a circumstance which, added to the ex-

treme imbecility of his character, told against him. Noo Nehal made no secret of his determination, sooner or later, to try the issue of a struggle with his neighbours. The Queen Regent had neither time nor inclination to take the subject up, far less to consider it fully;—and Shere was a decided enemy to war. Though urged by most of the chiefs, and by the whole of the military classes, to fall upon Pollock's rear, and cut off his convoys, he steadily refused; and a conspiracy was forthwith concocted to get rid of him. In 1843 he was murdered, at a review of cavalry just outside the gate of Lahore, and Ajeet Singh, his brother-in-law, who did the deed, endeavoured to seize the government. We confess that we have no taste for describing the atrocities which followed. Ajeet slew every member of the royal family whom he succeeded in getting into his power, showing mercy to none—not even to an infant born the day previous; and was himself cut to pieces in an attempt to escape out of the citadel of Lahore, where he had stood a siege. There arose fresh factions, fresh strifes, fresh atrocities, which ended in the setting up of a reputed son of Runjeet—Dhuleeb Singh by name—a child of tender years, to whom his mother, the Ranee, undertook to play the part

of guardian; but the arrangement led to no better results. The regent, devoted to her own pleasures, lacked both the will and the power to control the Sikhs. The troops, receiving no pay, went hither and thither to plunder; and in the end, the only features of the right military character which that armed mob retained were courage and a soldierlike willingness to obey its officers in the field; and officers and men equally clamoured to be let loose against the English.

This is not the occasion on which to discuss the policy of the Cabul expedition, or to ask how far the war with China, which came upon the back of it, might or might not have been avoided. The true causes of the former seem to us never to have been fully set forth; the latter we believe to have been as indispensable, as in its results it bids fair to be advantageous to the whole civilised world. But the immediate consequence to the Indian government was a complete exhaustion of the treasury, which in 1836 had exhibited a disposable surplus of something like ten millions sterling. In a military point of view, likewise, neither war prospered in the hands of the government which undertook it. Lord Auckland's force in the Chinese seas proved inadequate to the occasion; with the details

of poor Elphinstone's imbecility and disaster our memories are still laden: and the effects of total defeat in one quarter, and of very equivocal success in another, told powerfully against the moral influence of England in the East. It was asserted in Leadenhall-street, more loudly than even at the Carlton Club, that the peace of India had been disturbed, and the existence of the Company's empire jeopardised, with a view rather to gain a little *éclat* for a falling cabinet than to accomplish any important end in Asiatic politics; and the assumed author of the mischief having resigned, Lord Ellenborough was appointed to succeed him. It was pressed upon the new Governor-General, in secret conclave and at public dinners, that the main purpose of his advancement was to give him an opportunity of restoring peace to Asia, and of leading back the minds of the Company's servants from dreams of military glory to projects of commercial and fiscal improvement. That he would retrieve the disgraces of the preceding administration, the Directors expected. Till this should be done, indeed, there could be no security for the Indian empire; but having done so, the Court anticipated that he would bend all his vigorous faculties, and employ all his recognised knowledge of Indian

affairs, in the arrangement of plans for bettering the condition of the people, and increasing, by a wise economy, the dividends on East India stock. How his Lordship fulfilled these expectations is fresh in the recollection of our readers. He fully redeemed the disgrace of the Cabul massacre. He brought the war with China to a glorious and a profitable termination; and achieved a not less important triumph by restoring discipline and good feeling to some native corps which had begun to complain, not altogether without reason, that the authorities seemed disposed to break faith with them.

While the Directors were rejoicing over these achievements, and counting the financial results that were to arise out of them, and writing despatches inculcative of a pacific policy, and hinting at retrenchments in every department of the state, the new Governor-General, obeying the impulse of a far-sighted genius, and anticipating results which had become inevitable, entered upon new wars. He marched one army from Bombay, under Sir Charles Napier, into Scinde; and sent another, with Sir Hugh Gough at its head, against the well-appointed forces of Guallior. The same brilliant success which attended his endeavours elsewhere

waited upon the combinations of his military leaders in both quarters. The battles of Meeanee and Hyderabad placed the whole of Scinde at our feet; and the Ameers being deposed, it was formally annexed to the Indian empire. At Maharajpore, likewise, and at Punniar, Sir Hugh Gough's troops covered themselves with glory, achieving, not without severe loss, great successes, and reducing a refractory state to obedience. It has become a sort of fashion, probably because they conducted their operations simultaneously, to compare Gough and Napier as generals, greatly to the disparagement of the former. This is not fair. The circumstances which controlled the proceedings of the one, were very different from those by which the other was surrounded. Both were equally gallant in delivering decisive battles, and equally fortunate in the issues of them. The Scinde campaign, well considered before hand, was conducted on scientific principles, and ended triumphantly. The battles of Meeanee and Hyderabad were fought against overwhelming numbers in men, and were gained as much by the tactics of the British commander, as by the valour of his troops. At Maharajpore and Punniar, on the other hand, the hostile armies, more equally matched, came unexpectedly in con-

tact, and the artillery of the enemy, the real strength of the native armies, was in both instances overwhelmingly superior. This sufficiently accounts for the heavier loss which the victors sustained, as well as for the larger number of guns which fell into their hands at the close of each day. But we must not forget that with the campaigns of Scinde and Guallior our concern for the present goes no further than to trace the effect, if any, which they may have had in leading to the war which terminated at Lahore. And of this there can be little doubt, because it is no longer a secret that the jealousy of the Sikhs, already active enough, became inflamed a thousand-fold at the tidings of our triumphs; and that the treaty of Guallior, though it secured us from attack on the flank, sent a large number of irritated soldiers, with cannon and munitions of war, to swell the amount and brace the confidence of the Sikh army.

Brilliant as Lord Ellenborough's administration had been, and eminent as was the success of his warlike projects, his general policy, possibly his style and manner of explaining it, proved by no means acceptable to the authorities at the India House. To the astonishment of the whole country, and in admitted opposition to the wishes of the

Cabinet, the Court of Directors asserted a privilege, which undeniably belonged to them; Lord Ellenborough was recalled, and Sir Henry Hardinge appointed to be his successor. That noble soldier and able statesman had, on the first tidings of the reverses at Cabul, been requested to assume the chief direction of the Indian army, and, with characteristic disinterestedness, had refused to come between the officers already in command of the Company's troops and the glory which he felt assured they were able and anxious to acquire by avenging for themselves the death of their comrades. But now, when it was made known to him that both the Company and the Ministry required that he should put himself in the post of difficulty and danger, he at once consented. Sir Henry was sworn in Governor-General early in May, 1844, and in little more than three weeks was on his way, overland, for the seat of his government.

If there had been urgent arguments addressed to Lord Ellenborough in favour of a peaceful reign, the wish both of the Directors and of the Cabinet on that head was expressed with increased earnestness to Sir Henry Hardinge. He was given to understand that nothing short of invasion from abroad, or some outrage upon the national honour,

such as it might be unsafe to leave unnoticed, would justify him in the eyes of his employers for embarking in hostile operations; and it was especially impressed upon him that he should not interfere in any way with the proceedings of the Sikhs, so long as they left the territories of the Company, and of the princes whom the Company had undertaken to protect, unmolested. It is necessary to state all this clearly, in order that the true causes of our seeming unpreparedness to encounter the danger of a Sikh invasion, when it came, may be understood. For it is no longer a secret, that one great reason for the abrupt recall of Lord Ellenborough was found in the fears of the Court of Directors, that having settled Scinde and Guallior in his own way, he might, under the pretext of keeping war at a distance, enter upon a crusade against the Punjab. Thus urged from without, and being lifted by his well-earned reputation as a soldier above the common cravings of professional ambition, Sir Henry entered upon the duties of his office, more anxious than perhaps any other Governor-General had ever been before him to signalise the entire term of his residence in India by the useful labours of peace. At the same time, he did not consider himself bound either to censure or to

retrace the steps which his predecessor might have taken in an opposite direction. He found that the attention of Lord Ellenborough had been turned seriously towards the north-western frontier; that all the towns, from Delhi to Kurnaul, were filled with troops; that the Commander-in-Chief had already surveyed the whole extent of the protected states with a view to make choice of military positions; and that the advanced posts of Loodiana and Ferozepore were garrisoned. Sir Henry Hardinge not only abstained from undoing any portion of this work, but he pushed it forward, at once vigorously and wisely. The fortifications at Ferozepore and Loodiana were enlarged and strengthened. The whole of the country between Umballa and the Sutlej was surveyed. It was the season for relieving the garrisons at the more advanced stations, and the troops appointed for that duty moved up from the interior. But secret instructions went with them, which kept the old garrisons still in their places; so that the force on the frontier doubled itself without any cause for reclamation being afforded to the Sikhs, or any ground for alarm and anxiety being established in Calcutta. Indeed, both in Council and elsewhere, men's thoughts were as much as possible diverted from the anticipation

of war, and given up, in appearance at least, to the arrangement of plans for the better education of the people of India, and the commencement of works which might facilitate communication through the country, and add fertility to its plains by better drainage and more abundant means of irrigation.

While the Governor-General is giving encouragement to the erection of native schools, and marking out highways, railroads, and a canal which shall pass through the whole valley of the Ganges, it may not be amiss if we cast our eyes rapidly over the provinces commonly styled "the protected states." Kurnaul, Seharanpoor, Paniput, and Meerut, constituted in 1844 the most advanced towns within the limits of the Company's dominions. Beyond the foremost of these, and between it and the Sutlej, lies a tract of country, extending in a straight line about two hundred English miles, which comprises the principalities of Pateala, Samanah, Sirhind, and other districts of less extent; and is governed by one or other of a batch of Rajahs, who derive their titles respectively from their very limited dominions. These Rajahs are all Hindus by lineage, by religion Sikhs. Their territories were repeatedly overrun by Runjeet, and would have been permanently annexed to his

empire, had not Lord Minto interfered to prevent it, and by the treaty of Umritzer secured to them their independence, on condition that they acknowledged the English Government as their protector. But protection in the East gives to the protecting power certain rights not dissimilar from those which the feudal superior used to exercise over his vassal in the Europe of the Middle Ages. We exacted no tribute from the Rajahs, but we held them bound, in case of war, to take the field at the head of their contingents, and we proclaimed ourselves next in succession to such of them as might die without natural heirs. Moreover, that the protection which we undertook to afford might be effective, there were conceded to us two posts upon the Sutlej, where, for a quarter of a century or more, we have been in the habit of keeping garrisons, and between which and our own frontier we had the right of constant and free communication. The posts in question are Loodiana and Ferozepore, both isolated, and standing full one hundred miles apart; and the better to maintain the connexion between them and the British frontier, Umballa, though, strictly speaking, a town within the limits of the neutral ground, had been latterly occupied by a British force.

Satisfied with the dispositions which were thus made for the protection of the north-western frontier, and reposing full confidence in the Commander-in-Chief, Sir Henry Hardinge continued, throughout the winter of 1844 and the early spring of 1845, to prosecute his plans for the general improvement of India. That he kept his eye upon the Punjab, and was neither regardless of the confusion into which its affairs were falling, nor of the consequences to which this might probably lead, is most certain. As we have already explained, the works both at Loodiana and Ferozepore were strengthened, while the garrison of the latter place was raised from four thousand to seven thousand men. The former was held by about six thousand; and at Umballa, where Gough's headquarters were established, and among the cantonments in its rear, lay about seven thousand five hundred, of all arms. This was force enough, under almost any circumstances which could be anticipated, to put even the protected states out of danger; for no one counted on so a wild a step as pouring the whole armed power of the Punjab, in one enormous flood, across the Sutlej. Accordingly the beneficent projects, on the execution of which the Governor-General had entered, seem never to have been

interrupted; and they found him in ample employment; for his letters—some of which we have seen—describe him as devoting to the public business of his station not fewer than fifteen hours daily.

The state of things at Lahore was becoming continually more uncomfortable. There were two factions in the city—described as the English, and the anti-English. At the head of the latter was an intriguing Cashmerian slave-girl, a creature of the Ranee, who had established great influence over the troops. Gholab Singh was understood to be at the head of the former; but he, distrusting his own safety in the capital, had withdrawn to his fortress of Jamoo, where he gathered round him a formidable army, and sat still, as it seemed, to watch the event. Meanwhile it was believed by us, that the attitude of calm observation which we had assumed, would suffice to repress any disposition to active hostilities on the part of the Sikhs. The tidings, therefore, for which all men south of the Sutlej seem to have been prepared, were these—that a fresh mutiny had broken out, and that the Ranee and her son having shared the fate of their immediate predecessors, Gholab Singh was come down to place himself at the head of the government. Now had this, which was in the highest degree

probable, occurred, Sir Henry Hardinge, we may presume, might possibly have been prepared to recognise the new state of things. The character of Gholab Singh could not be unknown to him. He was aware that a more cunning and unprincipled intriguer did not exist, even in the Punjab: but he knew likewise that Gholab was an able man; and with an able man to control the councils of the nation, there were more chances of keeping at peace than with a woman or a child, overawed by a tumultuous army. Hence if Sir Henry meditated a renewal with Gholab of the treaties which had been contracted with Runjeet — whom Gholab in many points of character resembled — he took a statesmanlike view of his own position. And he did perfectly right, at all events, in abstaining from proceedings which might in the slightest degree tend to disturb existing relations between states, neither of which could be justified in interfering with the affairs of the other, so long as that other kept within the limits of its own territories.

But all experience proves that to calculate before hand upon what a barbarous people will do from a consideration of the course which it would be their wisdom to adopt, is idle. At the very moment when our government — relying upon the

intelligence which its political agents communicated — was counting on the extreme improbability of a national movement by the Sikhs, the Sikh soldiers, inflamed by the intrigues of a Cashmerian slave, were clamorous to be led across the Sutlej. They openly elected delegates or punchayets to preside over them, surrounded the palace, demanded the arrears of their pay, and proposed, as the sole alternative, authority to march and enrich themselves with the spoil of the English. The voluptuous Ranee, alarmed for her own life, and for the lives of her lovers, Tigh Singh and Lal Singh, consented to the latter proceeding; and orders were issued for an advance, in six divisions, of the whole disposable force of the Sikhs upon our frontier.

These occurrences took place about the middle of November, 1845, and were immediately communicated by Major Broadfoot, the political agent, to the Commander-in-Chief. Sir H. Gough, conceiving that hostilities were about to commence, ordered up from Meerut two regiments of European cavalry, and three of infantry. He was desirous too of reinforcing the garrison of Ferozepore, particularly with Europeans; for it was there that he expected the first blow to fall; and Sir John Littler's corps, though it reckoned in all seven thousand three

hundred men, included but one European regiment. But various causes connected with the political state of affairs induced the Governor-General to disapprove of the latter suggestion; and it was not carried into effect. Moreover the troops at Meerut had scarcely been warned to move, and that cantonment was in all the excitement and bustle which usually attends the opening of a campaign, ere fresh intelligence of a more pacific nature arrived. The Sikh army had determined on consulting the astrologers, who declared that a propitious day for beginning the march would not occur earlier than the 28th; and though the soldiers were furious, and spoke of deposing the Ranee, and bringing in Gholab Singh, it was considered highly improbable that they would take courage to act in opposition to the omens. Indeed nobody appeared to be able, from the appearance of things as they were on one day, to calculate what another might bring forth; for the public revenue, as well as the pay of the troops, was in arrear; and a project was openly broached of getting rid of both difficulties at once, by granting assignments to the mutineers on the rents of the defaulters — and thus preserving peace abroad, while the disturbers of internal tranquillity were

left to pay themselves. Under these circumstances, the march of the Meerut corps was likewise countermanded; and our preparations may be said to have reverted to the state in which they had been during the greater part of the summer.

But long before things arrived at this point, the Governor-General, with the consent of the Supreme Council, had determined to proceed in person to the north-western frontier, in order that the power of the executive might be at hand for any emergency. He reached Kurnaul on the 26th of November, where the Commander-in-Chief met him, and the excellent feeling which mutual respect had already created between them, as personal strangers, grew at once, now that they looked one another in the face, into friendship. We have had the good fortune to read many of the letters of both, written in all the unreserved frankness of private correspondence; and we are bound to say that nothing can exceed the generous kindness with which each awards to the other the tribute of his praise. Nor will any one to whom, in private life, Lords Hardinge and Gough happen to be known, even slightly, be surprised at this. High-minded and chivalrous gentlemen, they are alike incapable of any rivalry, except for their country's good—alike eager to draw a veil

each over his own noble conduct, if by so doing he may be likely to bring the merits of the other more prominently forward.

As soon as the determination of the Sikh army to march upon the Sutlej became known, Major Broadfoot demanded an explanation from the durbar at Lahore. No answer was at first afforded; but a repetition of the demand brought an announcement on the 25th that two brigades had broken up, in spite of the astrologers' remonstrances, and were advanced to a station midway between Lahore and the Sutlej. An opinion, it was stated, had got abroad that the English were afraid to come to blows. It was accepted that the Earl of Ellenborough had been removed from office on account of his belligerent propensities; and that a policy strictly the reverse had been required of his successor. In a word, the Sikh soldiers, full of self-confidence, and despising the "terrified English," the "submissive Feringhees," were not, it seems, to be restrained; though it was by near observers still thought doubtful, after all, whether more than a little empty boasting would come out of it.

Such was the amount of the information received by our political agents at this time,—which, though sufficient to keep the minds of men on the alert,

would clearly not have warranted any change in the disposition of the British army. Perhaps our sources of intelligence might be defective. But defective sources of intelligence, where there are no means of providing better, must be received; and to act in opposition to the inferences which they teach us to draw would be madness.

There was no movement, then, of troops; but the civil and military authorities on the frontier were not idle. Strenuous efforts were made to collect such supplies of provisions and stores as might place the army, whether concentrated or detached, beyond the hazard of destitution; while to provide the means of transport, baggage animals of every description were purchased up wherever the commissariat could lay their hands upon them. The Governor-General sacrificed the whole of his camel train and elephants to the public service, though he left himself thereby as bare of personal comforts as any field-officer in camp. Moreover, he gave directions for the establishment of a magazine at Bussean, a place situated on the road from Umballa to Ferozepore, and midway between the latter place and Loodiana, whence, in the event of a sudden movement upon either of these advanced posts, the army might be able to draw supplies. Sir Hugh Gough's

despatch which mentions this arrangement pays a high compliment to the forethought which suggested it; indeed, there is little doubt but that it constituted one of the main elements of success;—without the sustenance which in the hour of need they received from that depôt, the troops must have sunk through sheer exhaustion, and the tide of war might have gone entirely against us in the end.

The Governor-General, immediately on the receipt of Major Broadfoot's communication, demanded from the Lahore durbar a distinct explanation of their intentions. No reply came on the 4th of December, whereupon the Sikh vakeel was commanded to quit the British camp. This proceeding amounted to a virtual declaration of war; and the Commander-in-Chief, so regarding it, again suggested the propriety of closing up the divisions in the rear. But as there was still a chance—a feeble one certainly—that absolute collision might be averted, the Governor-General contented himself with directing that the troops might be held in readiness, and the positions of the reserved corps were maintained accordingly. Meanwhile, however, Sir Henry Hardinge visited the territories of the protected rajahs, and informed them of his wishes. He then rode on to Loodiana, and after inspecting the troops, gave in-

structions to the officer commanding, that he should hold himself in readiness to march with every disposable man upon Bussean; converting thereby the Loodiana garrison into the advanced guard of the main army, which was prepared, under the Commander-in-Chief, to push forward from Umballa at a moment's notice. The force thus brought, or ready to be brought into camp, amounted to about five thousand men; a thousand, and no more, of the aged and infirm being left to take care of the place; but as the Rajah of Pateala undertook with his contingent to support this latter corps, the Governor-General calculated that against a sudden inroad of marauders (and in this direction he did not look for more) they would be able to maintain themselves.

Undoubtedly there was some risk in thus denuding so important an advanced post of its effective garrison. Had the Sikhs attacked Loodiana while we were manœuvring for the defence of Ferozepore — had they effected early in the campaign the movement which towards the close of it Sir Harry Smith defeated — the place might have fallen; and great blame would have been cast, justly or unjustly, both on the Governor-General and the Commander-in-Chief. But there is no carrying on

operations in the field without risk; and Sir Henry Hardinge, having formed the opinion that the enemy would move by one line only — at least in force — hazarded a measure of which the results were eminently advantageous. Besides, at the worst, Bussean was not so far removed from Loodiana as to render the arrival of succours in good time impossible. On the contrary, it offered an excellent base of operations for an army which, having two distant points to observe, was, owing to circumstances, more jealous of one than of the other; it constituted a pivot on which the whole strength of the British force could turn — being almost as near to Loodiana as to Ferozepore, and on the high road to both.

Each new day brought fresh rumours and tidings to the British head-quarters; and these assumed, at last, such a character that orders were issued for the advance of the main army towards Bussean. The march began on the 11th of December, Sir Hugh Gough pushing forward on the morning of that day from Umballa; while every station in the rear sent on its corps in like manner. There accompanied Sir Hugh three regiments of European infantry — the 9th, 50th, and 80th; one regiment of European cavalry, the

3rd light dragoons; four troops of European horse artillery; five regiments of native infantry; three regiments of native cavalry; and one troop of native horse artillery: in all 5500 men, with 30 guns. Behind him, at a day's march distant, came Major-General Gilbert, with three regiments of European infantry — the 29th, 31st, and 1st Bengal European light infantry, three regiments of native infantry, two batteries of field artillery, and one of howitzers: in all 4480 men, with 18 guns.

When the forward movement began, there was no certain intelligence at head-quarters as to the actual position of the Sikh army. That portions of it had approached the Sutlej, both the Governor-General and the Commander-in-Chief were aware; and it was to counteract this movement that the more advanced position of Bussean was about to be occupied. The troops, however, had accomplished but a two days' march, ere all doubt in regard to this matter was removed. The Governor-General was walking before his tent on the morning of the 13th, and conversing with Major Broadfoot about the general aspect of affairs, when a courier galloped up, and delivered to the latter a scrap of paper sealed. It proved to be a hurried despatch from his agent at Ferozepore, which announced

that eight battalions of Sikhs had crossed the river a little way above the town, and that the rest of the Khalsa army was passing. All ground of doubt and hesitation being thus removed, the authorities prepared to repel the danger where it threatened; and the division in the rear pressing up by double marches, and the corps from Loodiana being already close at hand, about fourteen thousand as good troops as ever carried arms in India began a rapid advance towards Ferozepore.

It had by this time become pretty clear that throughout the "protected states" a very bad spirit prevailed. Not a rajah or village-chief could be depended upon; for though it was well known that most of them were in constant communication with Lahore, to a man they had abstained from forwarding intelligence to the English leaders. On the 16th the advanced guard, which both Sir Henry Hardinge and Sir Hugh Gough accompanied, received proof enough that they were moving through a hostile instead of a friendly country. At nine o'clock in the morning they reached a fortified village called Wudnee, and called on its head man to admit them to the shelter and refreshment of which they stood in need; but he shut his gates against them. "As our battering guns were far

in the rear," writes the Commander-in-Chief, "it was determined to reserve the place for future chastisement. Nevertheless, the horse-artillery unlimbered and drew up; whereupon the garrison, distrustful of the event, submitted so far as to furnish supplies. These proved miserably inadequate to the wants of the men, but did something to restore the exhausted strength of the cattle."

Having settled this point, the troops again moved forward. They were all dreadfully fatigued, particularly the sepoys, whose physical strength is much inferior to that of the European soldier. Yet, when told that another day's march would bring them up with the enemy, they answered with a cheer, and declared that they were able to proceed any distance, and would go on till they dropped.

On the 17th a spy was brought into camp, who reported that the enemy were about eight miles from Ferozepore, with sixty thousand men and two hundred pieces of cannon. The same day brought a letter from Sir John Littler which confirmed the report of the spy; and stated, over and above, that the enormous disparity of numbers would prevent his acting on the offensive; but that his corps were in good heart, and would be able to repel any attack that might be made upon him. Tidings such as

these had no other effect than to quicken the movements of the army,—the troops pushed on in spite of fatigue, thirst, and terrible privations; and compassed, day by day, under the vertical sun of India, an average of six-and-twenty English miles.

It is the custom in the Bengal army to carry the cooking utensils of the men on the backs of baggage animals. The same practice used to prevail in our own army till the Duke of Wellington put a stop to it; and as baggage animals invariably knock up sooner than men, the Bengal soldier is liable, in a series of forced marches, to suffer as our men used to do from the absence of food, even when the commissary is less blameworthy than he is sometimes supposed to be. Whether the precaution was taken to fill the haversacks of the Europeans with bread and cooked meat ere they set out for Umballa, we do not know. But supposing this to have been done, as men seldom carry more than three days' provisions anywhere, and as the sepoy exists upon rice and other grain, which will not bear to be cooked beforehand, and is too bulky to be borne about his person, it is evident that all the marches of a force which depends upon a train of baggage animals for the means of dressing its food, must,

after the third or fourth day, be performed under peculiarly harassing circumstances. On the 17th our gallant fellows had undergone privations such as troops not worsted in the field, and in broken retreat, seldom encounter; and on the 18th they were destined to be tried still more severely.

It had been ascertained in the course of the 17th that the movement of our columns on Bussean was felt in the Sikh camp near Ferozepore. The enemy, it was stated, had divided his strength; and while one portion observed Littler from an entrenched camp at the Nugger Ghaut, the other was advancing to intercept and, if possible, to surprise the relieving army on its march. The single effect produced by this report upon officers and men was that it braced them the more to contend against their difficulties; and the columns went forward in good spirits, though in a state of severe suffering.

It was yet early in the day when the patrols of the advanced guard fell in with parties of Sikhs, which had been sent out to feel for their coming. A skirmish ensued which ended in the retreat of the enemy, who abandoned a village of which they had taken possession, and soon disappeared. The villagers, having learned that a strong force was in position about five miles off, communicated the in-

formation to our patrols, by whom it was conveyed without loss of time to the Commander-in-Chief. No check, however, took place. The columns held their onward progress; and a little after mid-day Sir Harry Smith's division, supported by two brigades of infantry — one from each of the divisions of Major-General Sir John M'Caskill and Major-General Gilbert, together with five troops of horse-artillery, two light field-batteries, and the whole of the cavalry — namely, 3rd light dragoons, the body-guard, the 4th and 5th light cavalry, and the 9th irregular horse — passed by the village of Moodkee and proceeded to bivouac a little way in front of it.

Both men and horses were terribly jaded. They had found no water throughout the whole day's march, and were without supplies at the end of it; for many had no provisions at all issued out to them; and others, though in this respect more favoured, lacked all convenience for cooking. But rest of itself was a luxury, and they cast themselves upon the ground. They had not lain long, however, ere mounted patrols came galloping in from the pickets to announce that the enemy were approaching. In an instant bugles and trumpets sounded the assembly. The Governor-General and

Commander-in-Chief rode from regiment to regiment encouraging their men: and the latter, putting himself at the head of the cavalry and artillery, moved forward. Meanwhile, Sir Henry Hardinge —though as yet a mere military amateur—formed the infantry in echellon of brigades, closing up the rearward corps; and by and by moved in support of the troopers in advance, with a magnificent array of twelve battalions.

How the battle of Moodkee was fought — how nobly — yet at what a terrible cost the victory was won—the despatches of the two generous colleagues well describe. The field of action was a sandy plain, covered with low brushwood, and broken by slight elevations. The armies came absolutely in contact ere the private soldiers on either side could tell that an enemy was near; but the manœuvring of the British horse and the practice of the artillery were both admirable. The former, after advancing in columns of brigade, opened out into line, so as to screen the formation of the infantry, and to give time for the artillery to come up; and then passing by echellon of squadrons to the right and left, threatened both of the enemy's flanks, and turned their left. A warm cannonade ensued on both sides—in which our artillery, though lighter than that of the

Sikhs, had the advantage—while the 3rd dragoons, supported by the body-guard, the 5th, and a portion of the 4th, after chasing the Sikh cavalry from the field, swept along the rear of their line, silenced their guns, and rode through their battalions. Meanwhile the British infantry came on, and forthwith, to use the plain words of the Commander-in-Chief, "the roll of the fire from this powerful arm convinced the Sikh army that they had met with a foe they little expected." The battle may have lasted in its fury about an hour. At the end of that time Europeans and sepoys, side by side, advanced with the bayonet, and burst through the opposing line with that cheer, seldom heard in vain, in which our Indian soldiery have long since learned to join with English energy. It was the crowning and decisive movement, for the enemy once broken never rallied; yet they fought in detached bodies still; and as the evening set in rapidly, and the dust and smoke deepened its darkness four-fold, a little confusion occurred. Some of the Sikh battalions wear scarlet, which misled our men more than once, and caused detached parties to fire upon one another. Nevertheless our troops were kept marvellously in hand, all things considered; and having fairly seen the enemy off the ground they,

some hours after nightfall, returned to the bivouac, and slept.

The loss in this encounter was on our part severe, though not more than the nature of the contest and the extreme exigency of the service appear to have accounted for. We have felt it chiefly, because in the list of the killed appear the names of men who had either done the country good service, or were full of high hopes which there needed but time and opportunity to fulfil. Here died Sale, the hero of Jellalabad, than whom the British army never produced a better soldier. Here M'Caskill brought his long and important services to an end. Both shared the warrior's grave with young Herries*, Pollock, and Munro, and with other officers of the highest promise and the most conspicuous gallantry.

Foremost in this bloody fray were the Governor-General and the Commander-in-Chief. Wherever the fire was hottest, there you were sure to find them: yet both escaped unhurt. Sir Hugh Gough did not quit the field till the last file of his gallant

* The British army never lost a young officer of higher promise or of more amiable disposition than Mr. Herries; and the confidence reposed in him both by Lord Ellenborough and Sir H. Hardinge was as marked as the affection of his comrades. His fall was literally *wept*, beside the Governor-General's bivouac.

army withdrew from it. It was two in the morning of the 19th ere he lay down, and six saw him again on horseback; for the general cannot sleep as the private soldier does, and the general, on the present occasion, seems scarcely to have required the refreshment of sleep at all. Nor was the activity of the veteran uncalled for. Though repulsed, the Sikhs were neither defeated nor cowed. They had left behind them, it is true, seventeen pieces of cannon, and the field of battle was covered with their dead; but in numbers both of men and of guns they still exceeded the English beyond all calculation, and their confidence in their own valour was not abated. They hovered about the camp in such a menacing attitude that our troops were repeatedly required to get under arms; and the whole of the 19th was spent in keen watchfulness by both parties.

The evening of the 19th brought into the British lines a valuable reinforcement. Two European regiments, the 29th and 1st Bengal light infantry, after making incredible exertions to get forward, arrived in time to compensate for the casualties which the action of the previous day had occasioned; and the Governor-General, about the same hour, made glad the heart of the Commander-in-

Chief by offering to serve under him — literally as well as virtually — and to assume the post of second in command. We have not forgotten that this act of Sir Henry Hardinge incurred, when it first became known in this country, something like censure. There were those who contended, first, that he was altogether without authority to interfere in the executive details of the army; and next, that independently of such merely professional considerations, it was neither prudent nor becoming in one intrusted with the high functions of head of the Indian government to expose the empire to the confusion which would doubtless ensue were any casualty to befal him. But they who took this view of the question forgot that the posture of affairs at the seat of war set all ordinary rules at defiance. The loss of such officers as Sale, M'Caskill, and others, told much against the efficiency of the army, and could hardly be compensated except by some such arrangement as that which was entered into between the Commander-in-Chief and the Governor-General. Meanwhile, for all purposes of internal administration, the Deputy-Governor of Bengal, appointed expressly on the departure of Sir Henry Hardinge for the north-western frontier, was competent, in case of the worst, to conduct

affairs till a successor to Sir Henry should arrive. And such was the nature of the commission which the latter carried, that neither by this nor by any other similar step did he abrogate one tittle of the authority, political or military, which appertained to him as head of the Indian government. His proposal to serve as second in command under Sir Hugh Gough was therefore not only not censurable, but it showed the Governor-General to be possessed of an extraordinary share of generosity; while the frank and manly manner in which the proposal was acceded to, did credit to both the head and the heart of the Commander-in-Chief.

It is necessary, before proceeding further with our narrative, to advert a little to the movements of the Sikhs, and to describe, in few words, the nature of the plan on which subsequent information showed that they were acting. Some brigades, having set the responses of the astrologers at defiance, moved early in November towards the Sutlej. They halted, however, on their own side of the river, in consequence of an assurance which they received, that the rear of the army, bringing the generals along with it, would join them on the morrow; and the promise was so far verified that in due time seventy thousand men or more drew to a head, and the campaign was

opened. The whole passed the Sutlej much about the time that our troops at Umballa were put in motion. They drove in Littler's outposts, and loosely invested Ferozepore; but the blockade was not very strict from the outset; and when tidings arrived of the advance of Gough, their plans underwent a change. About thirty thousand infantry, with a large force of cavalry, took up a position, which they fortified, near Ferozepore, though rather in observation of it than as a besieging army. The remainder marched to Ferozeshah, a village about ten miles in advance, towards Moodkee, where they forthwith began to entrench themselves, and which, in the course of a few days, they managed to surround with a double circuit of works, the outer line being an irregular polygon. It was a portion of the army from Ferozeshah, amounting to about twenty thousand foot, with a huge swarm of horse, that fought the battle of Moodkee; and the survivors from that bloody field drew off, checked indeed, but not confounded, that they might return to their fortified position, and render it stronger.

The shock of a great battle, even when it ends favourably, is not surmounted in an hour, particularly if the victorious army be in presence of a force superior to itself in point of numbers, and still con-

fident in the strength of its position and the weight of its artillery. It was impossible, after so stern a conflict as that of the 18th, that our generals should be in a condition to move earlier than the 21st; but at four o'clock in the morning of that day the line of march was formed. It was wholly unencumbered with baggage. The sick, the wounded, the stores of every description, were left under the protection of a battalion and a half of native infantry in the camp, and the tents themselves were not struck. There is no denying that this was a bold manœuvre; for the camp stood in an open plain, and two hostile armies, each more than double the whole of the British force, seemed to threaten it. Moreover, the armies in question swarmed with cavalry, which, though it had displayed little steadiness when opposed in the field to ours, was still very formidable for purposes of plunder. Nevertheless the reasons for encountering this risk were so cogent, that both the Commander-in-Chief and the Governor-General yielded to them. The operation on which they were about to enter required a compact and pliable force, whereas an Indian army, attended by even a curtailed amount of baggage, is the reverse of pliable. They were about to raise the blockade of Ferozepore; after effecting which, and joining Sir John

Littler's corps to themselves, the real business of the campaign would begin: wherefore, taking into account the difficulty of protecting a long line of baggage in the presence of an active enemy, and remembering that the means of transport at their disposal were become inadequate to the conveyance of the whole; considering, too, that some depôt must be formed at Moodkee, inasmuch as the bad cases among the wounded could not be removed, and that a small guard would be in danger from the disaffected villagers, as well as threatened by marauding parties from the Sikh camps, the British chiefs came to the conclusion that it would be best to march with arms and ammunition only, and to entrust the safety of the camp to a corps numerically strong enough to maintain itself; for they counted on nothing more than a dash of horsemen to the rear. They took it for granted that, with a general action impending, the Sikhs would hardly venture to detach either from their infantry or their artillery, and they entertained no doubt that a battalion and a half of well-disciplined sepoys would give a good account of whatever Sikh cavalry might endeavour to molest them.

In the course of the 20th the plans settled at headquarters were communicated to Littler. Sir Hugh

Gough had determined to turn the position of Ferozeshah on its right; and Sir John was directed to move in good time out of Ferozepore, so as to form a junction with the advancing army at a spot parallel with the enemy's lines, yet well out of reach of their fire. The calculations of time and space appear to have been made by both leaders with exceeding accuracy. The Commander-in-Chief, quitting his camp at four in the morning, found himself at the point of junction a little after noon, and was greeted, as he approached, with the sight of heavy clouds of dust—a sufficient indication that other troops than his own were in motion. The patrols soon met, and found themselves mutually in the presence of friends. It was Littler's column which, punctual to a moment, had executed its appointed part in this manœuvre of combination; and as Gough had marched left and Littler right in front, there needed but a general deployment to bring the whole army into line, fronting the enemy's position. The entire of the disposable force, within a theatre of two hundred miles diameter, was thus concentrated. From Loodiana every man that could be spared had been withdrawn; and now the junction of Littler swelled the amount of troops in

hand to something about sixteen or seventeen thousand men.

Thus far all had gone well. It was yet early, not more than two or three o'clock in the day; and now the obvious question arose, to what use was it advisable to apply the advantage that had been gained? Some there were who, if they did not counsel, certainly conceived that it was the policy of the British general to procrastinate. He had gained his object. Littler was relieved; and henceforth delay, which should enable his reinforcements to come up from afar, was all in his favour. But Sir Hugh Gough viewed the circumstances of his position differently. At the present moment the Sikh army was divided. A corps, to the full as numerous as that which occupied the intrenched camp, lay some miles above Ferozepore, and might, in the course of four and twenty hours, either join the force at Ferozeshah, or fall upon the British flank—or burn the town which Littler had evacuated—or cut off the Commander-in-Chief's communications with the rear, and destroy his camp. He was convinced, therefore, that according to all the principles of war a battle ought to be hazarded immediately; for though his troops were somewhat fatigued, the rest of a single night would hardly

refresh them, particularly as they were without provisions for men, or forage for horses, and that water itself was wanting. The Sikhs, on the contrary, would take no hurt by delay, but the reverse. They had plenty to eat and drink; they would strengthen their works to the last hour; they would doubtless send—they had probably sent already—to inform the blockading army of what had happened. It was clear, therefore, that to attack on the instant was best for us: and as the gallant old general entertained no doubt that he should be able to force the lines before dark, he counted on winning for his followers, with their own bayonets and swords, the refreshment of which they stood in need. Accordingly, directions were given to form in order of attack; and the whole line moved foward.

It is neither our intention to describe nor to criticise in detail the fierce combat of Ferozeshah. Sir Hugh Gough has been censured for attacking the longer face of an intrenchment, which in his despatch he describes as a parallelogram. But Sir Hugh has scarcely done himself justice by thus writing of a fortified position, which presented on all sides innumerable salient angles, and had all the cross fire to protect it which a polygon can

give. Moreover Sir Hugh did not explain, what is well known, that on the face which he attacked, being that which was averted from Moodkee, the enemy had bestowed much less pains than they did upon the point on which they calculated that the storm would burst, and, finally, that the attack fell upon more than one face, inasmuch as two of the extreme corners of the camp were turned.

The British army was formed in two lines for the attack. On the left of the first line was Littler's corps—then that of Wallace (late M'Caskill's)—on the right Gilbert's. Beyond each flank was extended a troop of horse artillery, while the body of the guns was massed in the centre. Sir Harry Smith's division of infantry formed, with the cavalry, the second line, the cavalry taking the flanks and supporting the troops in front of them by brigades. Finally, Gough placed himself at the head of the right wing ; and Hardinge took command of the left.

In this order, and full of confidence in themselves, the troops moved on. Sir John Littler's corps seems to have made its formation nearer to the enemy's works than that of General Gilbert. The consequence was, that it attacked rather too soon, and suffered severely: for there was no diversion

in its favour; and the enemy were able to turn against it the whole volume of their fire. 'Hence the dreadful slaughter in the ranks of the brave 62nd, which exhibited no symptoms of wavering or of panic; but pressed on, as if eager to accomplish impossibilities, till, by direction of the officer commanding the brigade, it was made to desist. Hence, too, the whole of the left wing—after performing prodigies of valour, and forcing its way within the outer line of the enemy's works—found it necessary to withdraw from them again, and to pass the night outside. It was not so with the right of the army under Sir Hugh Gough. There, as well as elsewhere, the fire of artillery was appalling; there men and horses went down by sections; and our lighter guns, dismounted and disabled, told how far inferior we were in the very arm wherein it had heretofore been our pride to believe that we surpassed all the armies of Asia. Nevertheless the right wing would take no denial, and, in spite of mines which exploded there as well as elsewhere, forced its way over ramparts and through embrasures, and bivouacked where the men had fired their last shot. What a night was that which followed! Side by side with the dying and the dead, the

living lay down. They strove to sleep; some of them did sleep in spite of cold, hunger, thirst, and, worse than all, the cries and groans of their wounded comrades. And all around them and above, the horizon was illuminated with the flames of burning huts, exploding shells, tumbrils, ammunition carts, and occasionally a mine. Moreover, they suffered, even then, from a constant fire of artillery, which became at one time so annoying—where the Governor-General was in person—that he was forced to order two regiments, the 80th and 1st Bengal Europeans, to charge with the bayonet. But Sir Henry Hardinge and Sir Hugh Gough knew no rest at all; they went about from corps to corps, animating the men, and cheerfully demonstrating to the officers that there was no alternative on the morrow but victory or death. And great need there was of this buoyant spirit in the chiefs. The army had just fought such a battle as the annals of Indian warfare could not match. Every man had put forth his whole strength: yet there they were — not defeated, certainly — but with ranks thinned, and physical powers exhausted—face to face with an enemy who seemed as resolute to prevail as themselves. Let us not therefore wonder, far less speak in language of reproach,

concerning the whispers that passed from fire to fire about retreating. Let us be rather thankful that there were such men present, to repress and deride them, as Sir Hugh Gough and Sir Henry Hardinge. "The Governor-General is of opinion that it will be best to cut our way at once to Ferozepore," said an officer of rank to the Commander-in-Chief. "The thing is impossible," replied Sir Hugh; "I know Sir Henry Hardinge better; but to put an end to all doubt, I will go to him. At the same time I tell you beforehand, my mind is made up. If we must perish, it is better that our bones should bleach honourably at Ferozeshah, than rot at Ferozepore; but they shall not do either the one or the other." "The Commander-in-Chief thinks," said another officer of rank to Sir Henry Hardinge, "that it will be fatal to risk a renewal of the fight to-morrow." "Don't you believe a word of it," replied Sir Henry. "The Commander-in-Chief knows as well as anybody, that it will never do for a British army to be foiled; and foiled this army shall not be. We must fight it out as soon as there is light enough to show us the enemy." And so, in a hopeful spirit, though weary, worn, and suffering, the army passed the night.

And here let us not forget to take notice of

certain little circumstances which will in all time coming give to this brief but stern campaign, an interest peculiarly its own. Both the Governor-General and the Commander-in-Chief were in the field, surrounded by their nearest relatives and most attached friends. Sir Henry had his eldest son with him as private secretary—another, a mere boy, his aide-de-camp — and a nephew, Col. Wood, attached to his personal staff. Sir Hugh Gough had a son-in-law and a nephew with the army, of whom the former now lay severely wounded at Moodkee, while the latter, though very young, commanded one of the cavalry brigades. Moreover, there had accompanied the Governor-General an illustrious stranger, one of the Princes of Prussia, who, though a traveller in British India for information, could not, consistently with the habits of his race, smell gunpowder without placing himself in the hottest of the fire. These family groups — for such they well deserve to be called — came together, in a night like this, with more than usual sympathy; and very bitter were Mr. Hardinge's feelings, when his father, remonstrating against such an uncalled-for exposure of a life which was very dear to him, and which, as a civilian, the young man was not morally justified in hazarding, ordered

him to quit the field.* We wish that, without a breach of confidence, or doing outrage to feelings which are too holy not to deprecate display, it were permitted us to make some of the members of these groups the heroes of their own tale. Our readers would in that case find that the language of nature constitutes the highest species of eloquence, and that all attempts to embellish or to retail at second-hand, narratives that have their groundwork in the affections, are worse than unprofitable.

"The long night," as Sir H. Gough describes it, wore away; and at dawn on the 22nd the line was again formed. As it had been the previous day, so it was arranged now—that the horse artillery should cover the flanks, and the heavier pieces combine their fire in the centre; but a very brief practice showed that for an artillery combat we were over-matched. Down went our artillery, men and horses; and guns and ammunition-carts, struck in every part, rolled over or blew up with a frightful explosion. Once more, therefore, the bayonet was

* We shall, we hope, be pardoned for mentioning that Mr. Hardinge, originally destined for the army, is understood to have been forced to change those views in consequence of an accident which befel him while yet at school or college, and which occasioned the amputation of a foot.

called upon to do double duty. The line of infantry cheered and pressed forward; but such was the weight of round and grape-shot, that for a moment it seemed doubtful whether even their indomitable spirit would be able to resist it. And here befel a little incident which reminds us of the more heroic times of warfare. The Commander-in-Chief, seeing a part of his line reel and stagger under the fire, bethought him that, if he could divert even a portion of the cannonade for a few moments to another point, the crisis of the battle would be passed. He forthwith rode forward, attended by a single aide-de-camp, and, making himself prominently conspicuous to the Sikh gunners, moved slowly to one side, as if for the purpose of reconnoitring their intrenchments close at hand. In an instant almost every gun in the battery was turned upon him. The shot ploughed up the dust about him, so as well nigh to hide both him and his horse from the enemy's view: yet not one took effect; and so complete was the diversion that the line of infantry felt as if relieved, and, with a shout, sprang forward. The next instant saw the redoubt, with all the artillery which it contained, in their possession.

Complete success attended the advance of the British line. Our troops carried the inner works,

entered the village, and then bringing up their shoulders, swept the whole of the position. Conspicuously in front rode Sir Hugh Gough on the right, and Sir Henry Hardinge, attended by his young son, on the left; and when the line halted there arose such a shout—such a cheer of congratulation to both leaders—as must have filled even their veteran hearts with pride. But not yet were the perils of the day over. The movement, on which Sir Hugh Gough had counted as probable, was already begun by the Sikh army of reserve. It had marched from its camp above Ferozepore early in the morning; and now the advanced guard, at the head of which Teigh Singh had placed himself, opened upon our troops a murderous fire of artillery. The cavalry, which had acted heretofore in support, was ordered up to check the advance; and such of the guns as continued serviceable accompanied them. But the practice of the Sikhs was so accurate and rapid that the native troopers could not face it; they fell back in confusion. Nevertheless the artillery maintained its ground, though terribly overmatched; and the infantry showing a bold front, the enemy drew off. It was no retreat, however; it was a mere retrogressive movement, executed for the purpose of gaining

time for the arrival of supplies; and, by and by, thirty thousand infantry, with cavalry and guns in proportion, drew on. Now, at last — though only for a moment — the heart of the noble Commander-in-Chief sank within him. "The only time I felt a doubt," he writes, "was towards the evening of the 22nd, when the fresh enemy advanced with heavy columns of infantry, cavalry, and guns, and our cavalry horses were so thoroughly done up that they could not command even a trot. For a moment, then, I felt regret (and I deeply deplore my want of confidence in HIM who never failed me nor forsook me), as each passing shot left me on horseback; but it was only for a moment." Who does not venerate the man who, after victory has crowned his efforts, is yet so lowly in his own esteem as thus to express himself?

It is well known, that by a fortunate demonstration, which our jaded cavalry just retained strength enough to make, the Sikhs were led to believe that we were going to fall upon their flank in force. A panic seized them, they abandoned their guns; and our infantry, ever undaunted, did not give them time to recover, for they advanced with a cheer, firing as they went, till they reached the pieces, which were instantly spiked. Moreover, just at

this time a staff officer, whose case shall be explained presently, ordered the remains of our cavalry and artillery to retire into Ferozepore. They marched accordingly; and the Sikhs, conceiving that they executed a manœuvre for the purpose of seizing the fords, and cutting them off from their own side of the Sutlej, fled with redoubled alacrity, and never stayed to look back till they had put the river between them and the Feringhees.

The battle was won: yet neither the troops nor their Generals could tell whether it might not be renewed on the morrow. The night was therefore passed in anxiety and watchfulness; and as no supply of provisions had as yet come up, the sufferings of all ranks were severe. Moreover, when daylight showed that the infantry alone were in position — that neither a battery of cannon nor a squadron of cavalry was at hand to support them — there arose a general feeling of indignation first, and by and by of extreme thankfulness that the confidence of the enemy had been destroyed. It is fair to add, however, that neither artillery nor cavalry could have rendered any effectual aid to the infantry, had both arms been present. The last cannon-cartridge was expended; and as to the troop-horses, they were so completely knocked up,

that for purposes of manœuvre, far more of a charge, they had become useless. Nevertheless the removal of both to Ferozepore having been effected by the blunder of an inferior officer, he was put in arrest, till it was found, on medical examination, that he laboured at the time under an aberration of intellect.

No man who took part in the bloody battle of Ferozeshah will ever forget the order which the Governor-General issued to the army in the course of the 23rd. It paid the tribute that was due to the heroism of the troops, and informed India, and indeed all the world, that the arms of England were still triumphant; but it did more — it invited the survivors from the fight to assemble near the Governor-General's tent, and to unite in returning thanks to the Lord of hosts for the success with which he had crowned their efforts. Honour be to the noble soldiers who, amid the triumph of a great victory, were not forgetful of the source whence all strength and true glory come! For they who thus bring in the close of a day of carnage, rob war itself of a portion of its horrors; and it is known that in private, as well as on the public occasion referred to, many a knee in that army was bent in prayer and praise — the Commander-in-Chief and

the Governor-General both setting the example, though blushing, as religious soldiers are sometimes too apt to do, when surprised in the performance of so righteous an act.

The loss in these operations was very great, and it included many officers of high character and promising reputation. Major Broadfoot, the political agent, a man of first-rate talent and admirable acquirements, was among the killed; as were Colonel Wallace and Major Somerset*, the brave son of a brave and most distinguished father. As to the European regiments engaged, they were thinned beyond all calculation; the 62nd, in particular, having left more than half of its numbers on the field. Nevertheless, the victory, considered in a political as well as a military point of view, was worth all that it cost. Whatever prestige had heretofore attached to the Sikh name was dispelled. The protected Rajahs, instead of throwing them-

* Major Somerset was not killed on the spot. Terribly wounded, he was found, at the close of the first day's fight, half frozen among a heap of slain, and the soldiers carried him to one of their fires. The warmth caused his wounds to bleed afresh; and he said, "I am glad, my lads, that I was with you to-day; I fear that I can be of no use to-morrow." So spake a worthy descendant of John of Gaunt, and expired almost immediately.

selves into the arms of the enemy, hastened to make such amends as their fears dictated, and the whole of the country up to the left bank of the Sutlej was safe.

Though twice defeated, and considerably reduced in point of numbers, the Sikh army was not yet subdued. It retreated in tolerable order towards the ford near Sobraon, leaving Ferozepore open; and there crossing over, took up a position, which, according to usage in such cases, the chiefs began immediately to fortify. By and by, as the crippled state of the British army, especially in regard to ammunition, rendered a close pursuit on their part impracticable, the Sikh leaders took heart; and laying a bridge of boats upon the stream, passed a portion of their army over again to the left bank, and set about intrenching. It is just to their military character, and to the professional skill of their European advisers, to state that the positions which they seized on both sides of the river were exceedingly strong. They had placed themselves on a bend of the Sutlej, where, from the depth and breadth of the stream, it gave ample protection to their flanks; while the front of their line, to the extent of perhaps a mile and a half, they covered with batteries, redoubts, and strong breastworks.

Moreover, they formed this intrenched camp so that it should be open everywhere to a plunging fire at five hundred yards' distance from the high grounds on the opposite (their own) side of the river; and placing their heaviest cannon in battery upon these heights, they crowded their works on the British side with field artillery. Thus by a *tête-de-pont*, which with some reason they came in time to regard as impregnable, they covered the bridge and fords, retaining thereby their hold, so to speak, on the protected states, and having it in their power, at any moment, to resume the offensive.

It was impossible for Sir Hugh Gough to prevent this. He had done wonders, considering the means at his disposal, and enjoyed the confidence of his troops so completely, that there was nothing which they would have hesitated to attempt. But for the present he was not in a condition to hazard more than a bold front to the enemy. Accordingly, after allowing a few days for rest, and seeing the dead buried, and the wounded perfectly cared for, he advanced towards the Sutlej; and establishing his head-quarters at a place called Bootanwalla, observed the whole course of the river, from Rooper down to Mendote.

During the remaining days of December and the early portion of January, 1846, the British and Sikh armies continued to face one another. The enemy worked steadily at his intrenchments, and received from day to day such reinforcements and supplies as the neighbouring capital could furnish. We, on the contrary, waited for the coming up, from afar, of men, horses, cannon, ammunition, and treasure, which arrived slowly and by driblets. At the same time care was taken to secure every important post throughout a line of not less than five and twenty miles in extent. On the extreme right lay Brigadier-General Cureton's brigade, consisting of two regiments of native cavalry, the 16th lancers, and a troop of horse-artillery; it watched the Hurrakee Ghaut. Communicating with him to the left came the infantry divisions of Sir Harry Smith, Major-General Gilbert, and Sir Robert Dick. Then succeeded two brigades of cavalry under Major-General Sir J. Thackwell; and Major-General Grey's infantry corps formed the left. All these were in communication, stretching from Mukhoo on the right, to Attaree, about eight miles from the cantonment of Ferozepore, on the left, with the mass of the artillery parked in the centre, and batteries here and there where their presence

seemed to be required. But, besides the piquets of horse and foot which covered him as a matter of course, Sir Hugh Gough had other corps, widely but necessarily detached from all these. For example, Brigadier Godby held Loodiana with one regiment of native infantry, a battalion of Goorkas, and a battery of guns. The cantonments of Ferozepore were occupied by Sir John Littler's division; and two regiments of native infantry, with guns, observed the Gunda Singwalla Ghaut, in advance. Finally, the roads in the rear, from Sirhind to Bussean, were covered with convoys on the move; horse, foot, guns, Europeans, and natives, all pressing forward to take their share in the operations that were impending. The British force collected or assembling on the Sutlej towards the end of January may be taken, in round numbers, at 30,000 of all arms, divided into thirty-one battalions of regular infantry, and nine regiments of cavalry; besides artillery, horse and foot, and a considerable amount of irregulars.

Though they kept no portion of their field force on our side of the river, the Sikhs continued to draw from certain feudatories there considerable supplies. They had once made a foray as far as the outskirts of Loodiana, during which they burned

some of the cantonments, and caused considerable alarm; and at Dhurumkote, a fortified village on the road from Ferozepore to Loodiana, they had established a magazine, under the protection of a force of Affghans, Rohillas, and other mercenaries. Sir Hugh Gough determined to seize this depôt, and detached for the purpose Major-General Sir Harry Smith with one of the brigades of his division. This was on the 18th of January, and Smith executed the service intrusted to him with promptitude and effect. But he was as yet only *en route* when the Commander-in-Chief received intelligence that Runjoos Singh, with a large force of all arms, had crossed the Sutlej by the ford of Philour, and was marching again upon Loodiana. It was of the utmost consequence to counteract this movement. With Loodiana in his hands, the enemy would be able to interrupt the whole line of the British communications, and might, even if successfully resisted there, operate unspeakable mischief; wherefore Sir Hugh Gough, running great risks for the accomplishment of a great purpose, ordered Brigadier Cureton to join Sir H. Smith, and Brigadier Wheeler to move in support with as little delay as possible. It is not necessary to describe how these officers did their part, or with what admirable skill

Smith handled his division, extricating himself, in the first instance, from the hazards of a premature action, and ultimately overthrowing at Aliwal the *corps d'armée* which he had previously outmanœuvred. At the same time let us not forget, while we give our warmest praise to Sir H. Smith and his gallant followers, that the merit of having planned and risked the delicate operation attaches entirely to the Commander-in-Chief. He knew that a mighty stake was at issue. He did not hesitate, therefore, to weaken himself — more, perhaps, than the generality of leaders would have ventured to do, — in order that Smith might be in force enough to command success; and he secured his own safety from attack, while half his army was absent, by keeping, as he himself expresses it, "the enemy in a constant fidget." Never was Sir Hugh Gough so active, reconnoitring, cannonading, and making all manner of demonstrations, as at a time when his power to strike had gone from him; and he reaped his reward in the victory of Aliwal, of which he was not less proud than of any other throughout the campaign.*

* The following characteristic letter from the Commander-in-Chief to his agent in Ireland will be read with much interest.

The brilliant day of Aliwal settled the question of security to the British communications, and effectually frustrated any hopes which the enemy might have cherished of being able to remove the war to a greater distance from their own capital. It likewise left the British chiefs free to use their own discretion with regard both to the time and the manner of penetrating into the Punjab: for all accounts represented the Sikh soldiers as so humbled

It shows that in the midst of his own anxieties he was never unmindful of others:—

"*January* 18, 1846.

"George will communicate all the news. The public despatches will enter into details. I therefore can only say that I look forward to a glorious termination, under the protection and guidance of an all-wise and all-gracious Being. He has largely dealt blessings to me. Let me not be a niggard, in the hour of their distress, to my tenants and labourers. Remit as much as you please of the rents of the first—advance as much as you please for the wants of the others."

We wish that the delicacy—the excess of delicacy, may we not call it?—of Lord Gough's family did not stand between us and some of the vivid and touching letters which he addressed to them from various positions during this memorable campaign. That, however, which we cannot do directly, we may endeavour to accomplish indirectly, by showing how others thought and wrote about their chief; and the following extracts from the correspondence—first of a staff officer high in rank, and next of a sergeant employed as a clerk at head-quarters—seem sufficiently to serve our purpose:—

at last by the succession of reverses, that there was no probability of their again venturing to act on the offensive; and to strike at them, while in this frame of mind, seemed at once agreeable to good policy, and due to the prestige of invincibility with

"*January* 13.

"Sir Hugh is a wonderful man. This morning early he went off to inspect every regiment in the whole line, a distance of many miles. At one o'clock he returned, having been out since five: we all crying out for breakfast—he seeming to care very little whether he got any or not. He really astonishes every one; seldom rides less than thirty miles of a day, reconnoitring; and as fresh and active, or more so, than any young man in the camp. Withal he is so full of gratitude and love to God—so animated, so cheerful, and full of life—that he puts us all to shame."

So speaks the staff officer. Now hear the orderly-room sergeant:—

"*Lahore, February* 19.

"I have seen some little service both in China and at Gwalior; but the impression of the thunder of cannon and the roll of musketry, as also the awful loss of the enemy, will not soon be erased from my mind. Nothing like it ever happened in India: it is not likely such a hard-contested field will ever present itself in India again. A worm like myself can scarcely be supposed to speak of great men, nor do I presume to do so; but I shall merely echo the statements of others, which is to the effect that few individuals know a person with the elasticity of spirits, under great privations, which belongs to Sir Hugh Gough; and his escapes from danger heretofore have been quite providential. May God Almighty ever preserve him!"

which the British army was surrounded. At the same time, there were many weighty arguments in favour of delay. In the first place, we were not yet so strong, particularly in heavy cannon, as we expected to be; and our stock of ammunition was small. In the next place, Sir Charles Napier, who had been sent for at the opening of the campaign, was in full march with fifteen thousand men upon Moultan, and might be expected shortly to reach it. And lastly, while the Sikh position of Sobraon presented military features of extraordinary difficulty, there was every reason to believe that Gholab Singh, whose descent from Jammoo had been reported, was coming to effect a revolution in our favour. On the other hand, the whole world of Asia expected us to put down the Sikhs by force. They had offered such a stout resistance hitherto, that, though worsted, they still appeared to stand on the same level with ourselves; and to leave any one native army at liberty to boast that it had kept the field against us throughout the better part of a year, would be to place ourselves in a false position towards all other native armies. For the season was approaching which, even in the north-west of India, puts an entire stop to military operations; and hence the delay of a few weeks would lead to a

further delay of many, very much to the damage of our military reputation in the eyes of the Asiatic world. Under these circumstances, the Commander-in-Chief took counsel with the Governor-General regarding the propriety of crossing the river immediately, and dictating, as both were confident that they should be able to do, their own terms to a vanquished enemy in his capital.

We have already referred to the nature of the Sikh position on the Sutlej. An intrenched camp, semicircular in shape, rested both flanks upon the deep water, and communicated with the high grounds about Sobraon by a bridge, with a good ford on either side of it. The enemy's works were constructed with great skill and care, and lay exposed, in the rear, to a plunging fire of heavy cannon at five hundred yards' distance. The country being everywhere flat and open, all the approaches to the outer face of the camp must be made under a tremendous fire of artillery; for though we had by this time about one hundred pieces with the army, and though some of these — both howitzers and guns — were of battering calibre, the enemy still surpassed us in the number as well as in the weight of their artillery. It was known that they had in position upwards of one

hundred and thirty pieces, of which from sixty to seventy were field-guns, to the full as formidable as any which we could bring against them. Under these circumstances a front attack must necessarily be attended with a severe loss of life; and unless entirely successful—so far as to put us in possession of the whole of their field-train—it would hardly repay us for the cost. But was there any alternative? There was; and without pretending ourselves to offer any opinion in regard to the balance of chances on the one side or the other, we think it right to make our readers acquainted with the antagonist plans, between which it was the undoubted right of the Commander-in-Chief to choose.

The object sought was to throw the British army with as little delay, and at as small an expense of life as possible, across the river; dislodging the enemy at the same time from his position at Sobraon, and threatening Lahore. Now there were, or there might be, three methods of accomplishing this. The first and most obvious was to storm the intrenched camp; the next, to find out some fords, above or below Sobraon, by which the camp might be turned: the third, to take possession of an island in the Sutlej, as low down as Ferozepore, and operate thence upon the rear of the

enemy's works. The second of these projects we mention only because it was incidentally started in debate; it could not be pressed for this obvious reason, that there were no fords on the Sutlej available for any combined operations against the Sikh position or the intrenchments which covered it. But the third had a good deal to recommend it, though certainly it presented its difficulties too. The island of which it was proposed to make use lay five and twenty miles down the stream from Sir Hugh Gough's head-quarters. It was in itself five miles across, and could be approached from the British side only by boats, of which there were at hand sufficient to transport four thousand men with six guns at a trip. The island, moreover, was intersected by a nullah or cut, of which—after rain certainly, perhaps at other times — it was doubtful whether it could be forded. Now the calculation was, that four brigades would be able, between nightfall and dawn of day, to march from Bootanwalla camp, cross the island, and occupy the south side of the river. To be sure, this would give to the men a journey of thirty miles at the least; and when all was done, nobody expected that more than eight thousand with thirty guns would be able to effect the passage. But eight

thousand good troops could easily, it was contended, hold their own till, brigade after brigade being detached and thrown across, they should be raised to sixteen thousand; and then they were to advance against the flank and rear of the Sikh camp. Meanwhile a bridge of boats being laid down at Gunda Singwalla, Ferozepore would become the base of our future operations; and the whole army, throwing itself upon the Lahore road, would force the enemy to fight in the open country or to disperse.

The objections to this plan were, first, that we could scarcely hope, considering how accurate the information of the Sikhs was known to be, that the night march would take place without the enemy being made aware of it. But to be made aware of our purpose — and to defeat it — would prove one and the same thing; for the Sikhs had as short a distance as we to move upon the ford, and there was no river for them to cross in boats. Moreover, all night marches are liable to go wrong. The columns might miss their way, or the men and horses knock up; and as the island had not been closely reconnoitred, the obstacles presented by it might prove more formidable than was supposed. Again, did we not endanger our own magazines by

thus dividing our army in the presence of an enemy whose cavalry was so superior? Certainly the Sikh's courage might fail him. It probably would, after the experience of so many defeats: but assuming that he retained any portion of his original hardihood, we were offering to him, in the execution of this flank movement, such advantages as we had no right, on any principle, to concede. On the whole, therefore, taking into consideration that the enemy was somewhat jealous of the Gunda Singwalla Ghaut, — that he had there already a cavalry post of a thousand men, which he would be able to reinforce sooner than we could reach it from camp, — the Commander-in-Chief came to the conclusion that the risks of the plan more than outweighed its promise of advantages.

There remained only the first of the three projects. Sir Harry Smith was called in from Aliwal. The heads of the engineer and artillery departments were consulted in reference to the facility of providing adequate cover for the heavy guns; because it formed part of the plan to shake the enemy in his lines by means of a vertical and enfilading cannonade, ere the infantry should be let loose to storm. And all difficulties being in the end removed, dispositions were made for fighting a

battle, on which it was felt in both armies that the fate of the Sikh empire hinged.

Right gallantly the army of the Sutlej fought, and nobly the Sikhs once more withstood them.* The battle of Sobraon (Feb. 10) was as desperate an affair as ever occurred in the East; and the victory was decisive. The whole of the enemy's guns remained in our possession; and the river was choked with their dead. For well-timing his blow, Sir H. Gough delivered it just as a fall of rain had rendered the ford difficult; and that he all along looked to this contingency as a principal ingredient of success, his own letters, written long before the day of battle, demonstrate. "They have intrenched themselves," says he on the 2nd of February, "upon the very brink of the river, at a bend where their

* The personal courage of the Sikhs has been spoken of in all the public newspapers; but the following extracts from a letter written by a young aide-de-camp of the Governor-General, bring the fact more home than any which we have happened to meet with elsewhere:—"I saw one fellow dash out of the batteries, sword in hand; and before he was bayoneted he had himself cut down two of our Europeans." And again:—"We stopped one man who was levelling his musket at a dying Sikh in the river, to whom we promised protection if he chose to come to shore. The dying man shook his head, as much as to say that he would never give in to the Feringhees, and floated down the stream."

guns from the opposite side enfilade not only the position itself, but the advance to it. I have done everything to draw them out of it, but in vain. I now wait only some lucky opportunity; but the ford is so good that the whole, guns and men, may pass over any night without my knowing it. A good fall of rain, which would swell the ford, or an accidental thaw of snow upon the hills, may enable me, when they have no means other than their bridge, to attack them. Were I to do so now, I could not push on to Lahore, for my battering train is not up."

That for which the noble old soldier hoped, came at last; and the punishment which he was thereby enabled to inflict upon the Khalsa troops, his own tender because true heart shrank from contemplating.

With untiring activity the Governor-General hastened from the field of battle to Ferozepore, and superintended in person the construction of the bridge of boats, as well as the passage of four brigades, which had been kept in hand for the purpose of being ferried over. The consequence was, that without the delay of an hour, the Punjab was entered, and that march begun which did not conclude till it had carried the victors to Lahore.

Of the political consequences of this brilliant campaign we are not here called upon to speak in detail. It led to the treaty of Lahore; whereby an attempt was made to accomplish two objects, contradictory, in a certain sense, one to the other, yet both of them important. The Sikh empire was spared in order that there might still be a native power interposed between us and the mountain hordes of Central India. It was deprived of a rich principality, of which Gholab Singh was placed at the head, with the view of rendering it too weak to engage again in hostilities with British India. At the same time the awkward and unsatisfactory connection which for thirty years had subsisted between us and the protected chiefs was dissolved, by the absorption of their territory into our own, and the advance of our frontier to the Sutlej. That we had scotched, not killed the snake, by these arrangements, the lapse of a few months made manifest; but the arrangements themselves were well received at the moment, as well by Her Majesty's Ministers as in Leadenhall-street. Meanwhile, Hardinge and Gough became, as they deserved to be, the idols of their countrymen, and both were raised to the peerage. One, after attaining successively to the two most import-

ant military posts under the Crown, died, not long ago, full of years and honour. The other still survives—with fresh laurels on his brow—to command, wherever he goes, the respect and affectionate esteem of all with whom he comes in contact. Honoured be the memory and the names of all the brave—both living and dead—who fought beside them.

"O who shall lightly say that Fame
Is nothing but an empty name;
When, but for those, our mighty dead,
All ages past a blank would be,
Sunk in oblivion's murky bed—
A desert bare—a shipless sea?
They are the distant objects seen,
The lofty marks of what hath been."

Joanna Baillie.

END OF THE FIRST VOLUME.

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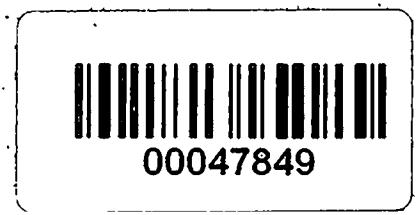
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